

# Mao Declaration

## Exhibit 98

Redacted Version of Document  
Sought to Be Sealed

# Psounis Transcript

CONFIDENTIAL

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA  
OAKLAND DIVISION

---o0o---

CHASOM BROWN, et al.,                   )  
on behalf of themselves                   )  
and all others similarly                   )  
situated,   )  
                    Plaintiffs,                   )  
vs.    )Case No.  
GOOGLE LLC,    )4:20-cv-03664-YGR-SVK  
                    Defendant.                    )  
-----)

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Videotaped Zoom Deposition of  
KONSTANTINOS PSOUNIS, Ph.D.  
Friday, August 19, 2022

---o0o---

Katy E. Schmidt  
RPR, RMR, CRR, CSR 13096  
Veritext Job No.: 5344586

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IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA  
OAKLAND DIVISION

---o0o---

CHASOM BROWN, et al., )  
on behalf of themselves )  
and all others similarly )  
situated, )  
Plaintiffs, )  
vs. ) Case No.  
GOOGLE LLC, ) 4:20-cv-03664-YGR-SVK  
Defendant. )

BE IT REMEMBERED that, pursuant to Notice,  
and on Friday, the 19th day of August, 2022,  
commencing at the hour of 9:04 a.m., thereof, in Los  
Angeles, California, before me, KATY E. SCHMIDT, a  
Certified Shorthand Reporter in and for the County of  
Yolo, State of California, there virtually personally  
appeared

KONSTANTINOS PSOUNIS, Ph.D.  
called as a witness herein, who, being by me first  
duly sworn, was thereupon examined and interrogated as  
hereinafter set forth.

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22 Also present:

23 Sean Grant, Videographer

24 Jonathan Hochman, Expert Witness

25

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## QUESTIONS INSTRUCTED NOT TO ANSWER

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(NOTHING OFFERED.)

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LOS ANGELES, CALIFORNIA

FRIDAY, AUGUST 19, 2022; 9:04 A.M.

---o0o---

THE VIDEOGRAPHER: Good morning. We are on the record. The time is 9:04 a.m., and the date is August 19th, 2022.

Please note that this deposition is being conducted virtually. Quality of recording depends on the quality of camera and internet connection of participants. What is seen from the witness and heard on screen is what will be recorded.

Audio and video recording will continue to take place unless all parties agree to go off the record.

This is Media Unit No. 1 of the video-recorded deposition of Konstantinos Psounis, Ph.D., taken by counsel for plaintiffs in the matter of Chasom Brown, et al., versus Google, LLC, filed in the United States District Court, Northern District of California, Case No. 5 colon 20 dash CV dash 03664 dash YGI dash SEK, and is being conducted remotely using virtual technology.

My name is Sean Grant from the firm Veritext. I'm the videographer.

And the court reporter is Kathryn Schmidt,

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1 also from Veritext. 09:05

2 I am not related to any party in this 09:05

3 action, nor am I financially interested in the 09:05

4 outcome. 09:05

5 If there are any objections to proceeding, 09:05

6 please state them at the time of your appearance. 09:05

7 Counsel and all present, including remotely, 09:05

8 will now state their appearance and affiliations for 09:05

9 the record, beginning with the noticing attorney, 09:05

10 Mr. Mao. 09:05

11 MR. MAO: I'm just going to state it for the 09:05

12 plaintiffs, and I apologize to anybody in advance. 09:05

13 This is Mark Mao of Boies Schiller Flexner 09:05

14 for plaintiffs. 09:05

15 Also with me are Ms. Alison Anderson, 09:05

16 Ms. Erika Nyborg-Burch, Mr. Logan Wright, and I think 09:06

17 that is it for BSF. 09:06

18 I also have with us plaintiffs' technical 09:06

19 expert, Jonathan -- Dr. Jonathan Hochman. 09:06

20 Also with us are colleagues at the 09:06

21 Morgan & Morgan firm, Mr. Ryan McGee and 09:06

22 Mr. John Yanchunis. And lastly from Susman Godfrey we 09:06

23 have Mr. John Priddy. 09:06

24 MR. ANSORGE: Josef Ansorge with 09:06

25 Quinn Emanuel Urquhart & Sullivan. 09:06

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1 And I'm joined here today by Carl Spilly 09:06  
2 who's also with Quinn Emanuel Urquhart & Sullivan. 09:06  
3 MS. TRUONG: An Truong, 09:06  
4 Simmons Hanly Conroy, on behalf of Calhoun plaintiffs. 09:06  
5 THE VIDEOGRAPHER: Would the certified 09:06  
6 court reporter please swear in the witness. 09:06  
7 ---o0o--- 09:06  
8 KONSTANTINOS PSOUNIS, 09:06  
9 called as a witness by the Plaintiffs, who, being 09:06  
10 first duly sworn to tell the truth, the whole truth 09:06  
11 and nothing but the truth, was examined and testified 09:06  
12 as follows: 09:06  
13 THE VIDEOGRAPHER: Counsel. 09:07  
14 EXAMINATION BY MR. MAO 09:07  
15 BY MR. MAO: 09:07  
16 Q. Good morning, Professor. 09:07  
17 If my questions are -- sorry. Just -- 09:07  
18 A. Good morning. 09:07  
19 Q. Yeah. Make sure -- I will try my best to 09:07  
20 pause to allow you to state your answers, and -- it's 09:07  
21 a little awkward because, you know, these Zoom 09:07  
22 depositions, it's very difficult to see body language 09:07  
23 and hand gestures. So we're going to miss our visual 09:07  
24 queues a little bit here and there. So I apologize in 09:07  
25 advance. And I apologize to the poor stenographer 09:07

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1 Q. Yeah. I know that's a little confusing 09:08  
2 because your background is a library but, you know, 09:08  
3 it's within your home. 09:08  
4 And did you say it's Pacifica? 09:08  
5 A. Pacific Palisades. The ZIP code is 90272. 09:09  
6 I don't know if you know the Los Angeles area. It's 09:09  
7 very close to Santa Monica. 09:09  
8 Q. Got it. West side. That's considered west 09:09  
9 side, yes. 09:09  
10 Is there anybody with you in that room 09:09  
11 currently for that deposition? 09:09  
12 A. No. There is nobody. 09:09  
13 Q. Okay. Do you have any documents with you 09:09  
14 for this deposition? In other words, did you bring 09:09  
15 any documents? 09:09  
16 A. Perfect. The only document I have with me 09:09  
17 is hard copy of my expert report -- well, because of 09:09  
18 the -- but it was brought to me by Quinn Emanuel 09:09  
19 yesterday. 09:09  
20 Q. Okay. Are there any markings or writings on 09:09  
21 that? 09:09  
22 A. Not at all. 09:09  
23 Q. Okay. So one suggestion -- and we can wait 09:09  
24 for the break for this to happen -- is at some point 09:09  
25 I'm going to start referring you to Dr. Hochman's 09:09

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1 report as well, so you may want a physical copy. I 09:09  
2 think it's going to make it a little easier. But 09:10  
3 that's just my suggestion. Everybody uses interfaces 09:10  
4 differently, and it's completely up to you. 09:10  
5 Okay? 09:10  
6 A. How would I do this? I guess I can live 09:10  
7 with the electronic copy, unless Mr. Ansorge wants to 09:10  
8 assist with Quinn Emanuel -- 09:10  
9 MR. ANSORGE: Yeah. I fear we won't be able 09:10  
10 to express deliver that in time. So I think we would 09:10  
11 just have to work with the Exhibit Share copy of any 09:10  
12 exhibits that are entered. 09:10  
13 MR. MAO: Okay. Totally understood. 09:10  
14 BY MR. MAO: 09:10  
15 Q. What, if anything, did you do to prepare for 09:10  
16 this deposition here today? 09:10  
17 A. I viewed documents and testimony and had 09:10  
18 some meetings with counsel. 09:10  
19 Q. Did you review any documents not identified 09:10  
20 in your report? 09:11  
21 A. I don't think so. No, I can't think of any. 09:11  
22 Q. In total, how much time did you spend to 09:11  
23 prepare for this deposition? 09:11  
24 A. I'm just trying to get -- that's why I'm 09:11  
25 counting. About 20, maybe 30 maximum hours. 09:11

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1 Q. And when you are talking about the hours 09:11  
2 here, you're talking about hours with counsel or just 09:11  
3 total hours preparing for this deposition? 09:11  
4 A. Total. Total hours. 09:12  
5 Q. Preparing for the deposition? 09:12  
6 A. Right. 09:12  
7 So in these hours, there are some hours 09:12  
8 included that we are meeting with counsel. 09:12  
9 Q. Got it. 09:12  
10 Can you tell me who hired you for this case 09:12  
11 initially? 09:12  
12 MR. ANSORGE: Objection. Form. 09:12  
13 THE WITNESS: I'm sorry. I apologize. 09:12  
14 BY MR. MAO: 09:12  
15 Q. So let me -- 09:12  
16 A. Can you please rephrase -- 09:12  
17 Q. Sure. Yeah. I was going to do that because 09:12  
18 I do think that Mr. Ansorge's objection is proper. 09:12  
19 Who first reached out to you regarding 09:12  
20 expert work for this case? 09:12  
21 A. To the best of my recollection, because it's 09:12  
22 been some time, it was Mr. Josef Ansorge. 09:12  
23 Q. Do you and Mr. Ansorge have a prior 09:13  
24 relationship? 09:13  
25 A. No. 09:13

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1 Q. I was going to ask you if he was your 09:13  
2 student and whether or not he got an A in the course. 09:13  
3 But -- so you have no knowledge of how -- 09:13  
4 how Mr. Ansorge found you? 09:13  
5 A. I think that he found me through DLD, but 09:13  
6 that's something that -- I'm not sure. I don't know 09:13  
7 the process. I'm just -- 09:13  
8 Q. What is -- what is DLD? 09:13  
9 A. It's DLD. It's a firm that refers experts, 09:13  
10 that matches experts -- I don't know. I guess 09:13  
11 Mr. Ansorge would know more. But it is a firm that 09:14  
12 you submit your CV and they match experts with 09:14  
13 attorney offices, I guess. I haven't worked with them 09:14  
14 much. 09:14  
15 Q. Got it. 09:14  
16 Can you -- I think at some point during the 09:14  
17 break we're going to ask you for exactly the spelling 09:14  
18 of either the acronym of the name of that firm, if you 09:14  
19 don't mind. 09:14  
20 Okay? 09:14  
21 When did this outreach to you or to the 09:14  
22 agency first happen? 09:14  
23 A. I think it was towards the end of 2021, 09:14  
24 early 2022, to the best of my recollection. 09:15  
25 Q. Do you have an estimated month, you think, 09:15

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1       that he first reached out? 09:15

2           A.    I just don't want to answer it inaccurately. 09:15

3       That's why I'm thinking about it.  Maybe December, 09:15

4       January, in that time frame. 09:15

5           Q.    Of 2021 you said? 09:15

6           A.    December 2021 or January 2022. 09:15

7           Q.    Got it. 09:15

8                   Have you ever spoken with a 09:15

9       Dr. Georgios Zervas? 09:15

10          A.    I do not think so. 09:16

11          Q.    Do you know in this case what is the 09:16

12       difference between what you're supposed to do versus 09:16

13       what Dr. Zervas is supposed to do? 09:16

14               MR. ANSORGE:  Objection.  Vague. 09:16

15       BY MR. MAO: 09:16

16          Q.    What is the delineation between the two 09:16

17       roles, to the best of your understanding? 09:16

18          A.    I don't want to mischaracterize this because 09:16

19       I know what I've been asked to do for this case, 09:16

20       obviously.  So I've been asked to offer opinions on 09:16

21       Mr. Hochman's and Mr. Schneier's reports, rebuttals, 09:16

22       for the specific opinions and quotes that -- from 09:16

23       their reports that I cite inside my report, but I'm 09:16

24       not sure I can give a very precise answer -- an 09:17

25       accurate enough answer because I haven't ever talked 09:17

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1 to Mr. -- or Professor -- or Dr. Zervas to know 09:17  
2 exactly what he's supposed to cover and what I'm 09:17  
3 supposed to cover. 09:17

4 Q. Got it. 09:17

5 So that means that you have no prior 09:17  
6 relationship with Dr. Zervas. 09:17

7 Is that correct? 09:17

8 A. It is correct. I have no prior 09:17  
9 relationship. I don't -- he's an academic, so it 09:17  
10 could be the case that we met at a conference, but I 09:17  
11 do not remember this happening. So I can tell you my 09:17  
12 recollection is that I have never met him. It's just 09:18  
13 that some conferences have a thousand people and I 09:18  
14 don't want to say anything remotely inaccurate. 09:18

15 Q. Got it. 09:18

16 What about the other experts on Google's 09:18  
17 side in this case; do you have any prior relationships 09:18  
18 with the rest of them? 09:18

19 MR. ANSORGE: Objection. Compound. 09:18

20 THE WITNESS: Could you please tell me which 09:18  
21 ones you are -- well, maybe list them so that I make 09:18  
22 sure I don't give you any inaccurate answer. 09:18

23 BY MR. MAO: 09:18

24 Q. So I understand you want to be extremely 09:18  
25 precise. You said it a couple times. So let me just 09:18

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1 understand -- let me just maybe make this easier. 09:18

2 It doesn't sound like you actually spoke to 09:18

3 any other Google expert for the purposes of your 09:18

4 report or your testimony here today. 09:18

5 Is that correct? 09:18

6 A. I have not talked with any other Google 09:18

7 expert for the purposes of my report or testimony. 09:19

8 I did have a meeting, I think, with 09:19

9 Dr. Schwartz for 30 minutes -- about 30 minutes, 09:19

10 actually. I don't remember for how long. 09:19

11 Q. Was this with -- in the presence of other 09:19

12 counsel? 09:19

13 A. Yes. In the presence of Mr. Ansorge. 09:19

14 Q. Got it. 09:19

15 Who explained to you -- and I don't want to 09:19

16 know about what was explained to you. I just want to 09:19

17 know who -- who explained to you what your assignment 09:19

18 was going to be in this case? 09:19

19 I'm talking about first, the initial 09:19

20 engagement. 09:19

21 A. Mr. Ansorge. 09:19

22 Q. Got it. 09:19

23 And this, to the best of your recollection, 09:20

24 this first interaction was in December of 2021. 09:20

25 Is that correct? 09:20

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1 THE WITNESS: I have not -- I'm trying to 09:21  
2 remember. I've been in the business for high tech and 09:21  
3 multiple distributor systems for like 25 years. 09:21

4 I have not worked for Google. I'm not sure 09:21  
5 if I am working for Google now either. Maybe that's 09:21  
6 a -- maybe it's a terminology issue. 09:21

7 I would argue I'm working for counsel. But 09:22  
8 anyway, this is a debate, I'm just saying. 09:22

9 BY MR. MAO: 09:22

10 Q. Got it. No. I think that's actually very 09:22  
11 precise and helpful. 09:22

12 So when you say that you're not sure you're 09:22  
13 working for Google, is that because you have not had 09:22  
14 much interactions with Google employees? 09:22

15 A. You mean in the context of this case? 09:22

16 Q. Yes. In the context of this case. 09:22

17 A. I have not had any interaction with Google 09:22  
18 employees. 09:22

19 Q. Got it. 09:22

20 So did you -- have you interviewed any 09:22  
21 Google employees? I know that probably counts as an 09:22  
22 interaction, but I want to be precise because you're 09:22  
23 being very precise. 09:22

24 A. To the best of my recollection, no. 09:22

25 Q. Have you been able to access any Google 09:22

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1 technologies directly? 09:22

2 A. I'm not sure -- 09:23

3 MR. ANSORGE: Objection. Vague. 09:23

4 BY MR. MAO: 09:23

5 Q. So, for example, have you been able to run 09:23

6 any test against Google systems? 09:23

7 A. No. I haven't ran any test against Google 09:23

8 systems, whereby against Google systems I interpret or 09:23

9 I understand this to be that Google is giving me 09:23

10 access to their internal system, I'm getting passwords 09:23

11 to connect to their VPN or I go in presence at 09:23

12 Mountain View and I do tests. No, I have not. 09:23

13 Q. Got it. 09:23

14 So let's be very precise, because you're 09:23

15 being very precise. 09:23

16 For example, right, like you have not been 09:23

17 given access to do any data mapping, for example. 09:23

18 Is that correct? 09:24

19 MR. ANSORGE: Objection. Vague. 09:24

20 THE WITNESS: I -- I do have access, as I 09:24

21 describe in my report. Maybe I could open it up to 09:24

22 make sure I'm using the correct terminology here to 09:24

23 the -- obviously to the data that I am citing in my 09:24

24 report. There's also an appendix with data, and I 09:24

25 have done some analysis of this data. 09:24

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1                   And this access is done without me requiring                   09:24  
2                   to log in into the Google system as if I were a Google                   09:25  
3                   engineer employee, employed by Google.                   09:25  
4                   BY MR. MAO:                   09:25  
5                   Q.     Got it.                   09:25  
6                   A.     Does that -- okay.                   09:25  
7                   Q.     Got it.                   09:25  
8                   So have you interacted directly with Google                   09:25  
9                   in any way to do kind of like your own direct testing,                   09:25  
10                  like the way you were just talking about?                   09:25  
11                  MR. ANSORGE:   Objection.   Asked and                   09:25  
12                  answered.                   09:25  
13                  THE WITNESS:   No, I have not, as I said.                   09:25  
14                  BY MR. MAO:                   09:25  
15                  Q.     Okay.   That is helpful.                   09:25  
16                  And if I may just make sure we have marked                   09:25  
17                  as Exhibit 1, which has already been marked.                   09:25  
18                                   (Plaintiffs' Exhibit 1 was                   09:25  
19                                   marked for identification.)                   09:25  
20                  BY MR. MAO:                   09:25  
21                  Q.     If you don't mind pulling up Exhibit 1.   Can                   09:25  
22                  you just confirms that that is your rebuttal report?                   09:25  
23                  A.     Let me --                   09:25  
24                  Q.     Go ahead.   Please take your time.   Confirm                   09:25  
25                  that.                   09:26

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1 A. Let me just put this box here. 09:26

2 Yes. This is my report. 09:26

3 Q. Got it. 09:27

4 And does that report contain all of your 09:27

5 opinions? 09:27

6 A. Yes. 09:27

7 Q. And does this report contain all of the 09:27

8 basis for your opinions as well? 09:27

9 A. Yes. I mean -- let me be precise again. 09:27

10 Yes. I remember in the report saying 09:27

11 something to the effect of if new information comes, 09:27

12 then, you know, I can revisit the issues and add 09:27

13 supplementary opinions, I guess in that process. I 09:27

14 may also have new basis for the new -- for the 09:27

15 supplemental thoughts or opinions of mine. 09:27

16 Q. Got it. 09:28

17 When you look at your report, there is a 09:28

18 place where you list all the materials you relied on 09:28

19 for your rebuttal report. 09:28

20 Do you see that? 09:28

21 A. Let me open it up. 09:28

22 Q. By the way, totally fine to use the physical 09:28

23 copy if that's easier for you, Professor. 09:28

24 A. Are you referring to the produced documents 09:28

25 section page starting at 203? 09:28

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1 Q. I am referring to -- oh, physical copies 09:28  
2 versus virtual copies. 09:28  
3 I'm talking about the sources considered on 09:28  
4 191 and onward. 09:28  
5 Do you see that? 09:29  
6 A. Ah, 8, "Sources Considered." Yes. So let 09:29  
7 me go through this. 09:29  
8 Q. Sure. Please, go ahead. Let's be precise. 09:29  
9 A. Yes. This -- can you repeat the question? 09:30  
10 Q. Yes. Of course. Let's be precise. 09:30  
11 Is this a complete list of the materials you 09:30  
12 relied upon for your rebuttal report? 09:30  
13 A. To the best of my knowledge, yes. 09:30  
14 Q. How did you get these documents and sources? 09:30  
15 A. Depends on the type of document. For 09:30  
16 example, let me scroll at the top of this. 09:30  
17 So some documents have been provided to me 09:30  
18 by counsel. Like produced documents, the ones that 09:31  
19 have Bates numbers start with Google, expert reports, 09:31  
20 deposition text. 09:31  
21 Some documents are documents that I have 09:31  
22 researched myself. Like if you look, for example, at 09:31  
23 public documents, but they are -- you see the public 09:31  
24 documents? 09:31  
25 And even what I just said, it's not a 09:31

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1 hundred percent -- it's not the case that every single 09:31  
2 one document, you know, what it's -- Bates document -- 09:31  
3 do you see what I mean? I don't want to be to the 09:32  
4 point of being too -- but basically this is the main 09:32  
5 two sources: Either I found them on my own or they 09:32  
6 have been provided to me by counsel. 09:32

7 Q. Got it. 09:32

8 Now we've talked about how you've got the 09:32  
9 documents. 09:32

10 May I ask were there documents that you 09:32  
11 specifically requested yourself? And you can go by 09:32  
12 categories. Like what did you actually request? 09:32

13 A. There were documents that they were 09:32  
14 specifically requested by me. I wouldn't be able to 09:32  
15 tell you, especially when it comes to the produced 09:32  
16 documents just by the numbers, which ones in 09:33  
17 particular. Because while I was reviewing documents, 09:33  
18 I wanted to further investigate, look for some topics. 09:33  
19 So I would say I would like, you know, any additional 09:33  
20 documents you may have related to this topic. 09:33

21 And then they give me more documents. 09:33

22 With respect to public documents, I just 09:33  
23 found them myself. The vast majority of public 09:33  
24 documents, if not all of them -- if I say all of them, 09:33  
25 I would have to go one by one and make sure. But I'm 09:33

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1                   So for the case of B1 and DC, this is why                   09:37  
2           I'm listing them differently separately from the                   09:37  
3           others.                   09:37

4                   And the other two, I have to remember.                   09:37  
5           Because they are not in my report, I wouldn't want to                   09:37  
6           say something inaccurate.                   09:37

7                   But hopefully you already got what you                   09:37  
8           needed.                   09:37

9           BY MR. MAO:

10           Q.     Right.                   09:37

11                   And so what I'm trying to understand is did                   09:37  
12           you request all four of these source files yourself or                   09:37  
13           were they provided to you by counsel, to the best of                   09:38  
14           your recollection?                   09:38

15                   MR. ANSORGE:   Objection.   Form and compound.                   09:38

16                   THE WITNESS:   I think -- I don't remember.                   09:38  
17           I think I did request them.   For example, the -- the                   09:38  
18           two that I have in my report, and hence I know what                   09:38  
19           they are.                   09:38

20                   I believe the way I would put it as                   09:38  
21           precisely as possible is I said could you give me                   09:38  
22           files that they associated with two different Biscotti                   09:39  
23           IDs?   Because, you know -- and then they would give me                   09:39  
24           files.   Maybe some other files that they associated                   09:39  
25           with different Biscotti IDs.                   09:39

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1           So I guess I requested them. But before I           09:39  
2       see -- you know, there is a lot of files. I don't           09:39  
3       want say that, you know, one day I said can I please           09:39  
4       have the file DBL row 22C947?           09:39

5           You understand what I'm saying?           09:39

6       BY MR. MAO:

7           Q.     Got it.           09:39

8           So let me -- let me give you the reason why           09:39  
9       I'm asking.           09:39

10          A.     Perfect.           09:39

11          Q.     Okay. That way we can both be precise.           09:39

12           I'm going to introduce to you a document,           09:39  
13       and I'll explain to you what it is, if you don't know.           09:39  
14       But if you've seen this before, please let me know.           09:39  
15       It's Exhibit No. 2. If you've never seen it before,           09:39  
16       let me know immediately and then we'll kind of get to           09:39  
17       the point.           09:40

18                       (Plaintiffs' Exhibit 2 was           09:40  
19                       marked for identification.)           09:40

20       BY MR. MAO:           09:40

21          Q.     Exhibit No. 2 is an Order on Plaintiffs'           09:40  
22       Motion for Sanctions for Discovery Misconduct.           09:40

23          A.     Let me open it up. Order...           09:40

24          Q.     Take your time.           09:40

25           My first question to you is: Have you ever           09:40

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1                   Is that correct?                   09:42

2           A.    Yes.   It is correct.                   09:42

3           Q.    Okay.   So the reason why I ask is because                   09:42

4   part of the sanctions that was imposed related to data                   09:42

5   sources.   And one of the reasons why the Court                   09:43

6   sanctioned Google was for the withholding of data                   09:43

7   sources.                   09:43

8                   And you may take time to read through this,                   09:43

9   if you need, but I actually have a very, very specific                   09:43

10   question, which is on page 6, at the bottom, towards                   09:43

11   the conclusion.   So if you scroll to page 6, under                   09:43

12   "Conclusion," bulletproof -- bullet point 1.                   09:43

13                   MR. ANSORGE:   And, Dr. Psounis, since you've                   09:43

14   not seen this document before, you're well within your                   09:43

15   rights to familiarize yourself with the whole                   09:43

16   document.                   09:43

17                   MR. MAO:   Please do.   If you want to first                   09:43

18   read it, please do.   But I'm actually specifically                   09:43

19   asking you about that one point right there.   But you                   09:43

20   may take your time.                   09:43

21                   THE WITNESS:   Thank you.   I will very likely                   09:43

22   take my time to make sure I am precise.   But you are                   09:43

23   welcome to -- who knows.   Maybe I can be fast for you.                   09:43

24   I mean, I'm not trying to --                   09:43

25   ///

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1 BY MR. MAO: 09:43

2 Q. This is my suggestion: We can spend three 09:43

3 or four minutes on the record, trying to read this. 09:44

4 If you need longer than that and you want longer than 09:44

5 that, we're going to take a break and you can read it 09:44

6 on your own time. 09:44

7 How is that? 09:44

8 MR. ANSORGE: No, we're not going to do 09:44

9 that, Mr. Mao. We're not going to have the witness 09:44

10 reading documents during the breaks. 09:44

11 MR. MAO: Is this your deposition or my 09:44

12 deposition, Mr. Ansorge? 09:44

13 MR. ANSORGE: It's common practice, Mr. Mao. 09:44

14 We're not going to be sending the witness into a break 09:44

15 to be reviewing a 50-page document that you've shown 09:44

16 to him. That's not something we're going to do. 09:44

17 MR. MAO: Well, then I'm going to ask him: 09:44

18 BY MR. MAO:

19 Q. Do you want to read this document, 09:44

20 Professor Psounis? I presume you do; right? 09:44

21 A. I would like to read this document. 09:44

22 Q. Go ahead. Just do it. Let Mr. Ansorge and 09:44

23 I argue about that later. 09:44

24 Go ahead. 09:44

25 A. Okay. 09:44

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1 I'm at "Conclusions." I'm trying to scan 09:47  
2 it. So let me just read the "Conclusions" carefully 09:48  
3 now. 09:48  
4 I read it. 09:49  
5 Q. Great. Thank you. 09:49  
6 A. Up to page 7; right? I didn't go. 09:49  
7 Q. Oh, you didn't read the "Findings"? 09:49  
8 A. I was reading the first seven pages. 09:49  
9 Q. Ah. No. If you need to find the -- read 09:49  
10 the "Findings of Fact," please go ahead. I'll wait 09:49  
11 for you. 09:49  
12 A. If I -- okay. It's another 40 pages. I'm 09:49  
13 doing my best. 09:49  
14 Q. Go ahead. If Mr. Ansorge wants to argue 09:49  
15 about this, we'll argue with the Court on this. 09:50  
16 Go ahead. 09:50  
17 MR. ANSORGE: Mr. Mao, just so I'm clear, 09:51  
18 you're asking him to read the "Findings of Fact" in 09:51  
19 the order that extend from -- is it page 1 to 16? 09:51  
20 Is that correct? 09:51  
21 MR. MAO: I already told you that we should 09:51  
22 take a break. If you want to argue with me at this 09:51  
23 time, you're trying to duck from me, I will do that in 09:51  
24 front of the judge. We can do that. 09:51  
25 Go ahead. 09:51

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1 MR. ANSORGE: I'm just asking what you have 09:51  
2 asked the witness to look at in particular. Because 09:51  
3 there's two findings of fact. There's one right at 09:51  
4 the beginning of the document, to abbreviate it, and 09:51  
5 then there's one that's like 16 pages. 09:52

6 MR. MAO: I'm going to ask him about the 09:52  
7 document and I'm going to be asking him specifically 09:52  
8 about the parts that relate to data and logs. 09:52

9 THE WITNESS: So let me tell you what I've 09:52  
10 done already. I've read the first seven pages, and I 09:52  
11 am down to page 2. If -- on background. 09:52

12 If there is a specific part that you could 09:52  
13 direct me to, I have -- I'll be happy to go there. 09:52

14 BY MR. MAO: 09:52

15 Q. Sure. 09:52

16 So if you look at Exhibit A, which starts at 09:52  
17 page 8, if you're paginating -- sorry -- page 9, if 09:52  
18 you're paginating by .pdf, there's a section on 09:52  
19 "Google's Discovery Deficiencies." It's going to 09:52  
20 be -- 09:53

21 A. The .pdf page 9? I'm sorry. 09:53

22 Q. Yeah, .pdf page 9. 09:53

23 A. So "Finding Facts, Google Discovery 09:53  
24 Deficiency," yes, I see that. 09:53

25 Q. Okay. There are three bullets under there. 09:53

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1 Okay? 09:53

2 A. Yes. 09:53

3 Q. Timely -- "Fail to timely disclose relevant 09:53

4 witnesses." There's going to be "Fail to disclose 09:53

5 existence of incognito detection bits." 09:53

6 A. Mm-hm. 09:53

7 Q. And then there's going to be "Court order 09:53

8 required Google to produce plaintiffs' data and 09:53

9 identify relevant data sources." 09:53

10 A. Okay. Which one would you like me -- or 09:53

11 which one -- 09:53

12 Q. I think you're going to need to read that 09:53

13 entire subsection, "Google's Discovery Deficiencies." 09:53

14 A. Okay. 09:53

15 Q. And "Findings of the Fact." Because I'm 09:53

16 going to ask you -- it's going to be relevant for my 09:53

17 questions to you about your analysis. 09:53

18 A. Okay. And -- 09:53

19 Q. Take your time. 09:53

20 A. Interestingly, I was almost there, 09:53

21 meaning -- 09:53

22 Q. Of course. 09:53

23 A. -- I was almost at this page, which is I 09:53

24 guess good. 09:53

25 And I actually -- I think it was helpful for 09:53

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1 me that I read -- scanned really quickly the first 09:54  
2 seven pages, just to understand what this document is 09:54  
3 about. 09:54

4 Q. Yeah. Well, I'm a little surprised you 09:54  
5 don't have this so I do want you to take your time, 09:54  
6 you know, so that we're asking questions to you fairly 09:54  
7 and you can be precise. 09:54

8 A. I'm at "Google's Discovery Deficiencies," 09:55  
9 and I'm going through this section. 09:55

10 I think I'm done but let me again 09:59  
11 double-check the pages of the section you asked me. 09:59  
12 "Discovery Deficiencies" 9 to 16. 09:59

13 You said that pages 9 to 16; correct? 09:59

14 Q. Yes. 09:59

15 A. Let me see where I am. 09:59

16 Let me see already. I'm on page 16, 10:00

17 "Required to Produce" -- 10:00

18 THE COURT REPORTER: I'm sorry, Doctor, when 10:00  
19 you speak to yourself, I need to hear it clearly or 10:00  
20 not. 10:00

21 THE WITNESS: I believe I should -- I 10:00  
22 scanned all the way to page 33 so that we can move on, 10:00  
23 and see if I really need to spend more time, I can 10:00  
24 ask. I don't want to just, you know... 10:00

25 ///

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1	BY MR. MAO:	10:00
2	Q. Sure. Sure.	10:00
3	A. So 23 is the last page, correct,	10:00
4	essentially?	10:00
5	Q. Yeah. Yeah.	10:00
6	A. Okay.	10:00
7	Q. Yeah.	10:00
8	So -- so let's be very precise.	10:00
9	Okay?	10:00
10	Looking at Exhibit 1, which is your report,	10:00
11	it is dated June 7, 2022.	10:01
12	A. It is dated June 7, 2022, yes.	10:01
13	Q. Did you finish your report on June 7, 2022?	10:01
14	A. Around the date. I was --	10:01
15	Q. Okay.	10:01
16	Here is where the precision is required:	10:01
17	On May 20th is when we received the	10:01
18	sanctions order. You can verify that against	10:01
19	Exhibit No. 2.	10:01
20	My question to you, Professor --	10:01
21	A. Mm-hm.	10:01
22	Q. -- is did you take into consideration the	10:01
23	findings that were issued on May 20th, 2022 into your	10:01
24	report?	10:01
25	MR. ANSORGE: Objection. Vague. And calls	10:01

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1 for a legal conclusion. 10:02

2 BY MR. MAO: 10:02

3 Q. I'm asking because you said you've never 10:02

4 seen this document before, and that's what I'm trying 10:02

5 to understand. I'm trying to reconcile the two. 10:02

6 A. I've never seen this document before, to the 10:02

7 best of my recollection. There are many, many, many 10:02

8 documents. 10:02

9 So what I can tell, going through this 10:02

10 document now, is that I didn't see something in 10:02

11 this -- in this document that would change what I say 10:02

12 in my report. 10:02

13 My understanding of what this document is 10:02

14 saying is that -- I'm not a legal expert -- excuse 10:02

15 me -- if I will not be super precise now -- is that 10:02

16 there were some logs that -- that Google produced some 10:03

17 logs with incognito bit. 10:03

18 And then, Mr. Mao, you I assume wrote some 10:03

19 objections, evidentiary objections, that called for 10:03

20 Google's request to strike some of this. And 10:03

21 objections, I guess some others I don't know, but this 10:03

22 is what I saw at the beginning. 10:03

23 There was also a discussion in the section 10:03

24 you asked me to look at, "Discovery Deficiencies," 10:04

25 about whether it timely disclosed relevant witnesses. 10:04

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1 MR. ANSORGE: Objection. Form. 10:06

2 THE WITNESS: I can go through the list, but 10:06

3 I can tell you already I very much doubt I will 10:06

4 remember -- I very much doubt that I remember now 10:06

5 every single string name of every single file. 10:06

6 So can you repeat the question to 10:06

7 understand? I never said I won't file X, Y, Z. 10:06

8 BY MR. MAO:

9 Q. That is the question. The question I'm 10:06

10 going to have for you is how did you go about 10:06

11 selecting the data sources in which you considered? 10:06

12 Okay? 10:06

13 And what I'm pointing out is if you were 10:06

14 not, okay -- and this is not a question, because you 10:06

15 asked me a question, although this is my deposition. 10:06

16 I just want to facilitate the precision. 10:06

17 Okay? 10:06

18 If you were not told about this order on 10:06

19 May 20th, I'm trying to figure out whether and how you 10:06

20 got any of the sources at issue in this order where 10:06

21 the Court found that Google had withheld these sources 10:07

22 from the plaintiffs? 10:07

23 That's going to be my question. 10:07

24 So if you need to stop to look at the data, 10:07

25 do that. If you need to stop to look at your sources, 10:07

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1 do that. If you need to stop and go back and look at 10:07  
2 your report, please do that. 10:07  
3 MR. ANSORGE: Objection to counsel 10:07  
4 testifying. Argumentative. Compound. 10:07  
5 Is there a question pending, Mr. Mao? 10:07  
6 MR. MAO: There is. 10:07  
7 THE WITNESS: Okay. Can I ask you to 10:07  
8 please rephrase your question because I don't 10:07  
9 understand what you're asking me to -- 10:07  
10 BY MR. MAO:  
11 Q. Sure. 10:07  
12 My question to you again is: For the logs 10:07  
13 at issue in this May 20th, 2022 sanctions order, were 10:07  
14 the log sources part of your consideration of sources 10:07  
15 considered for your June 7th report, 18 days later? 10:07  
16 A. I honestly do not know. I don't know how I 10:08  
17 can check this right now. 10:08  
18 Q. Please, that's what today is for. Please 10:08  
19 figure out for me. Because my next question is going 10:08  
20 to be how did you go about figuring that out before 10:08  
21 the plaintiffs were given that data? 10:08  
22 A. Figuring what out? I still don't 10:08  
23 understand. 10:08  
24 Q. The relevant data sources. 10:08  
25 You are a data scientist, aren't you, 10:08

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1 Professor? I'm trying to figure out how did you pick 10:08  
2 your sources? 10:08  
3 MR. ANSORGE: Objection. Argumentative. 10:08  
4 Compound, and form. 10:08  
5 THE WITNESS: If you're asking about the 10:08  
6 four source file listed in my report on Bates 207, 10:08  
7 with respect to the first two that I recall, what has 10:08  
8 happened is I asked to have two files with two 10:09  
9 different Biscotti IDs for the corresponding 10:09  
10 plaintiff -- I believe it was a plaintiff there -- for 10:09  
11 the reasons of making an argument in my report. And I 10:09  
12 can also point out the paragraph where I am actually 10:09  
13 referring to this. 10:09  
14 So for these two, there are four source 10:09  
15 files. I can tell you now how I asked about the first 10:09  
16 two. 10:09  
17 BY MR. MAO: 10:09  
18 Q. Yeah. But I don't want to get that. 10:09  
19 You and I agree, right, for data analysis, 10:09  
20 we start with the sources you select. 10:09  
21 Do you and I disagree on that? 10:09  
22 MR. ANSORGE: Objection. Form. 10:09  
23 Argumentative. 10:09  
24 THE WITNESS: This is a very general 10:09  
25 statement. 10:09

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1 BY MR. MAO: 10:10

2 Q. Right. 10:10

3 So let me -- you expressed two big opinions, 10:10

4 in my mind in your report, Professor. 10:10

5 Okay? 10:10

6 Which is that using Google's data, users 10:10

7 cannot be identified. 10:10

8 A. Mm-hm. 10:10

9 Q. And then use -- and then incognito mode 10:10

10 cannot be reasonably accurately detected. 10:10

11 Do you disagree with those two as being your 10:10

12 opinion? 10:10

13 MR. ANSORGE: Objection. Form. 10:10

14 Mischaracterizes Exhibit 1. 10:10

15 THE WITNESS: The two opinions that I 10:10

16 believe you are referring to are my opinion -- 10:10

17 MR. MAO: No, no. Please stick to my 10:10

18 question, Professor. Those are my questions. 10:10

19 Court reporter, can you please read back my 10:10

20 questions? 10:10

21 (Court reporter reads back.) 10:11

22 THE WITNESS: My -- as a matter of accuracy, 10:11

23 I would like to read the exact text title of the two 10:11

24 opinions I believe you are referring to from my 10:11

25 report. 10:11

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1 Opinion -- it's because I don't want to use 10:11  
2 different words from the words I have put a lot of 10:11  
3 time to use and put down in my report, if you don't 10:11  
4 mind. 10:11

5 So opinion 1 says Mr. Hochman's -- 10:11  
6 BY MR. MAO:

7 Q. No, no. We're not doing that. I can see 10:11  
8 your opinions on your report. 10:11

9 I'm simply asking -- 10:11

10 MR. ANSORGE: Let him answer your questions, 10:11  
11 Mr. Mao. 10:11

12 BY MR. MAO: 10:11

13 Q. -- is my characterization correct of your 10:11  
14 opinions? 10:11

15 MR. ANSORGE: Mr. Mao, please wait -- 10:11

16 BY MR. MAO: 10:12

17 Q. If you disagree, please simply say you 10:12  
18 disagree. 10:12

19 MR. ANSORGE: Mr. Mao, please let the 10:12  
20 witness respond. He was completed responding to your 10:12  
21 questions. Clearly in the middle of a sentence. 10:12

22 THE WITNESS: I want to make sure we are 10:12  
23 talking about the same opinions. 10:12

24 My understanding is that you are referring 10:12  
25 to the following two opinions of mine: 10:12

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1           The first is what I call in my report           10:12  
2     opinion 1 and says "Mr. Hochman's opinion that users     10:12  
3     can readily be identified from the data at issue is     10:12  
4     incorrect."           10:12

5           And the second opinion I believe is           10:12  
6     opinion 8, "Mr. Hochman's opinion that there may be     10:12  
7     Chrome incognito bit reliably detects incognito     10:12  
8     traffic is incorrect."           10:12

9           So your question about these two opinions of     10:12  
10    mine is which one? Could you please tell me what is     10:12  
11    the question about those?           10:12

12   BY MR. MAO:           10:12

13       Q.    Sure. Let's stick to 1 and 8. So let me     10:12  
14    just rephrase your opinions there for a moment.     10:12

15           Okay?           10:13

16           Would you agree with me that "users can be     10:13  
17    readily identified from the data at issue" is     10:13  
18    incorrect?           10:13

19           MR. ANSORGE: Objection. Form and compound.     10:13

20           THE WITNESS: This is getting very legal.     10:13  
21    I'm not an expert in legal stuff.     10:13

22           So my opinion says that "Mr. Hochman's     10:13  
23    opinion that users can readily be identified from the     10:13  
24    data at issue is incorrect." So that's my opinion.     10:13

25    ///

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1 BY MR. MAO: 10:13

2 Q. So what's incorrect? Mr. Hochman's opinion 10:13

3 or the fact that correct users can be readily 10:13

4 identified -- 10:13

5 A. Okay. I am offering rebuttal to 10:14

6 Mr. Hochman's report. My opinion is that users cannot 10:14

7 readily be -- so I am saying that it's incorrect to 10:14

8 state that users can readily be identified from the 10:14

9 data at issue. 10:14

10 Q. Okay. So let's stick with that for a 10:14

11 moment. 10:14

12 Okay? 10:14

13 A. Okay. 10:14

14 Q. Your opinion that users can be readily 10:14

15 identified from the data at issue is incorrect, you 10:14

16 and I do not disagree that that's your opinion. 10:14

17 Is that correct? 10:14

18 MR. ANSORGE: Objection. Form. Compound. 10:14

19 THE WITNESS: In the context of my report -- 10:14

20 in the context of my report -- and I'm only saying 10:14

21 this because I don't understand all the legal nuances. 10:14

22 I just want to be accurate. 10:14

23 My report is a rebuttal to Mr. Hochman's 10:14

24 report. So all the opinions I'm expressing in my 10:14

25 report are, by definition, an opinion on whether 10:14

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1 something that Mr. Hochman is saying is correct or 10:14  
2 incorrect. 10:15  
3 BY MR. MAO: 10:15  
4 Q. That's what I asked you; right? I asked you 10:15  
5 very, very clearly, right, just a few minutes ago: 10:15  
6 Are you saying that it's only Mr. Hochman's 10:15  
7 opinion that is incorrect or the statement that users 10:15  
8 can be readily identified from the data at issue? 10:15  
9 MR. ANSORGE: Objection. Argumentative. 10:15  
10 BY MR. MAO: 10:15  
11 Q. Or both? 10:15  
12 MR. ANSORGE: Compound. Form. 10:15  
13 BY MR. MAO: 10:15  
14 Q. Are you saying both -- both are incorrect? 10:15  
15 MR. ANSORGE: Objection. Form. 10:15  
16 THE WITNESS: I don't -- I am saying that 10:15  
17 Mr. Hochman's opinion that users can readily be 10:15  
18 identified from the data at issue is incorrect. 10:15  
19 I will also add to offer -- you know, so 10:15  
20 that -- I don't see what is the difference? I'm also 10:15  
21 saying that based on all the, you know, data I have 10:15  
22 seen, the documents I have read, the understanding 10:16  
23 that I have about -- that were distributed systems 10:16  
24 from all these years and in particular, this 10:16  
25 particular system and this particular data at issue 10:16

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1 that we are talking about, that users cannot readily 10:16  
2 be identified from the data at issue. And I explain 10:16  
3 in multiple pages why I'm making this statement so -- 10:16  
4 okay. 10:16

5 BY MR. MAO:

6 Q. Great. We finally have a concession that 10:16  
7 that is the broad statement you're making. 10:16

8 Now I'm going to ask you what is the basis 10:16  
9 upon which you make that opinion? 10:16

10 Let's go back to the sanctions order. 10:16

11 Okay? 10:16

12 Again, my question to you is: On the basis 10:16  
13 of your statement saying that users can readily be 10:16  
14 identified from the data at issue is incorrect, did 10:16  
15 you actually look at and assess the data source at 10:16  
16 issue in the sanctions order? 10:17

17 MR. ANSORGE: Objection. Argumentative. 10:17  
18 Compound, and form. 10:17

19 BY MR. MAO: 10:17

20 Q. Take the time you need to verify the 10:17  
21 sources, Doctor. I want an A in your class. I want 10:17  
22 to be able to tell my friend that I got an A in your 10:17  
23 course. Please, tell me, which sources did you 10:17  
24 consider? 10:17

25 A. I have -- 10:17

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1 MR. ANSORGE: Objection. Asked and 10:17  
2 answered. 10:17  
3 THE WITNESS: I have considered everything 10:17  
4 that is listed on my report, and in particular 10:17  
5 appendix 8 has all the source that I have considered. 10:17  
6 So all the opinions I'm offering are using all the 10:17  
7 sources in appendix 8. And there are a lot of 10:17  
8 sources. 10:18  
9 So, again, that's why I'm putting them down 10:18  
10 and writing them in appendix 8 so there is no 10:18  
11 controversy of what I have and I have not considered 10:18  
12 to form my opinions. 10:18  
13 BY MR. MAO: 10:18  
14 Q. Great. 10:18  
15 So can we agree that if they are not listed 10:18  
16 in your "Sources Considered" list, okay, they were not 10:18  
17 part of the basis for your opinion? Can we agree on 10:18  
18 that? 10:18  
19 A. To the extent that there is no oversight 10:18  
20 when we were compiling -- when I was compiling, since 10:18  
21 I was taking this appendix 8, you could say that if 10:18  
22 there was another source that could be put in 10:18  
23 appendix 8, maybe it wasn't placed in the route of 10:19  
24 oversight. 10:19  
25 But, again, when I'm forming my opinions, I 10:19

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1 am also using my expertise formed throughout all these 10:19  
2 years, decades, on these type of systems. 10:19

3 So, again, I'm -- I'm really trying to 10:19  
4 understand. 10:19

5 You see, am I supposed to list in there 10:19  
6 every single paper, document, article, book that I 10:19  
7 have read over the last 30 years that I've been 10:19  
8 working in this field? Proposal, et cetera, 10:19  
9 et cetera, all these are sources that are forming my 10:19  
10 expertise on the matter. 10:20

11 So you see, I'm -- my understanding of what 10:20  
12 I'm putting in this appendix is I am putting specific 10:20  
13 things -- do you see what I'm trying to say here? I 10:20  
14 don't know -- 10:20

15 Q. No. I actually don't, because I now have 10:20  
16 questions about regarding when you got data sources. 10:20

17 Did you get any data sources after May 20th, 10:20  
18 2022? Did you get any new data sources after 10:20  
19 May 20th, 2022? 10:20

20 A. I don't remember if I got data sources after 10:20  
21 that day. You said May 20th -- 10:20

22 Q. 20th, 2022 -- 10:20

23 A. I honestly don't know. I don't remember. 10:20  
24 I -- I remember it was towards the end of May. 10:20

25 Again, I remember it was -- it must be 10:21

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1       towards the end of May that I have asked for these       10:21  
2       analysis.       10:21  
3           Q.    Let's make this easier.       10:21  
4                When is the last time you got new data       10:21  
5       sources?       10:21  
6           A.    To the best of my recollection, a couple of       10:21  
7       days before the June 7th deadline.       10:21  
8           Q.    And after the June 7 deadline, did you get       10:21  
9       any new data sources?       10:21  
10          A.    I do not think so, to the best of my       10:21  
11       recollection. So once I submitted my report, I don't       10:21  
12       remember requesting additional data analysis and that       10:22  
13       receiving data sources to the best of my recollection       10:22  
14       again.       10:22  
15          Q.    Do you have a record and trail of when you       10:22  
16       receive data sources, if I make a request?       10:22  
17               MR. ANSORGE: Objection. Vague, form, and       10:22  
18       compound.       10:22  
19               THE WITNESS: I don't know what would be a       10:22  
20       record trail. I can tell you I have -- I recall       10:22  
21       sending e-mails to counsel. I'm not sure whether this       10:22  
22       is privileged or not. I'm not a lawyer. You guys       10:23  
23       have to figure that out. Saying, ah, I would like       10:23  
24       this run or can you run this test for me on this data,       10:23  
25       you see. And so if you are --       10:23

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1 BY MR. MAO: 10:23

2 Q. If you have the data source, right, you 10:23

3 would have listed it in your report; correct? 10:23

4 MR. ANSORGE: Objection. Asked and answered 10:23

5 a number of times now, Mr. Mao. 10:23

6 BY MR. MAO: 10:23

7 Q. We've got seven hours with you, Professor. 10:23

8 I'm going to be going after this for a long time. 10:23

9 A. So I -- if you -- okay. So here is what -- 10:23

10 I don't know if this is helpful for you, but I'm 10:24

11 really trying hard here to help as much as possible. 10:24

12 Q. I appreciate it. 10:24

13 A. My report was submitted June 7th. I 10:24

14 remember having back and forth, asking counsel to run 10:24

15 some tests on data all the way until the last couple 10:24

16 of days. And hence this is after May -- you said what 10:24

17 was the date? -- I mean it's after towards the end of 10:24

18 May. I don't remember the exact date you mentioned 10:24

19 earlier. 10:24

20 I had and I have access to the data, but I 10:24

21 didn't want to use resources that I have through USC 10:24

22 to run experiments. 10:25

23 You understand why. It's not allowed. It's 10:25

24 not the right -- it's not within the policy of USC. 10:25

25 So I am instructed with very specific 10:25

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1 instructions, some people from the counsel's side, to 10:25  
2 run some analysis. And I am referring to this 10:25  
3 analysis in my report. I offered to go through this. 10:25  
4 You said you don't want to do it now. That's fine. 10:25  
5 And they did it. 10:25

6 So that's the most precise recollection of 10:25  
7 the whole process that I'm giving you. 10:25

8 So I don't know if this answers your 10:25  
9 question or if it at least helps. 10:25

10 Q. And that's the entire process up to 10:25  
11 June 7th; right? 10:25

12 MR. ANSORGE: Objection. Mischaracterizes 10:25  
13 prior testimony. 10:25

14 THE WITNESS: I don't know what you mean by 10:25  
15 the entire process. 10:25

16 So when it comes to processing data -- let 10:25  
17 me help this way: When it comes to processing data, 10:26  
18 whose findings -- whose results are in my report, the 10:26  
19 process I recall following is the one I described. 10:26

20 BY MR. MAO: 10:26

21 Q. Got it. 10:26

22 And the tests that you're referring to, 10:26  
23 right, refer to your analysis against the sources you 10:26  
24 listed in your report. 10:26

25 Isn't that correct? 10:26



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1 MR. ANSORGE: Objection. Argumentative. 10:28

2 THE WITNESS: No. This is -- 10:28

3 MR. MAO: That's actually in the record. 10:28

4 BY MR. MAO: 10:28

5 Q. Did you run the test yourself, Professor, or 10:28

6 did you have your counsel run the test? 10:28

7 A. So let me answer your first question first. 10:28

8 No, it is not because I had my counsel run 10:28

9 the test for me. 10:28

10 And the reason why this is not the case is 10:28

11 because, as I said, I oversaw the experiments. And 10:28

12 the only reason why I didn't run the experiments 10:28

13 myself is because I didn't want to use the computing 10:28

14 facilities that I have to my disposal myself, which is 10:28

15 that of USC, and that wouldn't be proper. 10:28

16 But I did send very specific instructions 10:28

17 about what to run. 10:28

18 So, no, this is not the reason why. 10:28

19 Could you please now repeat the second 10:28

20 question after this one? There was another question. 10:29

21 Maybe you can re- -- 10:29

22 BY MR. MAO: 10:29

23 Q. Yeah. 10:29

24 I'm just trying to figure out: Who actually 10:29

25 ran the test; you or your counsel? 10:29



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1           A.    As I said, it was me who oversaw the tests,           10:29  
2   asked specifically what needs to be done, gave           10:29  
3   specific instructions.           10:29

4                   And if you don't mind me drawing the           10:29  
5   parallel here, this is how I have been running           10:29  
6   experimental tests for the last 20 years that I've           10:29  
7   been a professor.           10:29

8                   So I have my Ph.D. students and I tell them           10:29  
9   I would like this test to be conducted. I explain what           10:29  
10   needs to be done. I give instructions. They send me           10:29  
11   the results back and -- because this also happened in           10:29  
12   this case. That's why I'm giving there's a parallel.           10:29

13                   And then I say, well, why this looks like           10:29  
14   that? Is this exactly what you did? Is this what you           10:30  
15   did? Is this what you did?           10:30

16                   And then they give back and get back to me           10:30  
17   with some other numbers.           10:30

18                   So I pretty much followed the exact same           10:30  
19   process.           10:30

20                   I guess -- does this shed some light on the           10:30  
21   process? So I --           10:30

22           Q.    Yeah. But I'm --           10:30

23           A.    You're saying -- so just to -- I am in           10:30  
24   charge of the tests. The same way I am in charge of           10:30  
25   the tests in the context of me being a faculty and a           10:30

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1 Ph.D. advisor of a number of Ph.D. students. And I 10:30  
2 get a very large grant from the government, from the 10:30  
3 industry. I am in charge. I have my students helping 10:30  
4 me. 10:30

5 I guess similarly with, Mr. Hochman. I 10:30  
6 don't know actually how he operates. But my 10:30  
7 understanding is that he has some people working for 10:30  
8 him. So I don't know -- 10:30

9 Q. Again, I'm asking about yours. 10:30

10 Okay? 10:30

11 Please don't burn my time on extraneous 10:30  
12 answers. 10:30

13 All I'm simply asking is who ran the tests 10:30  
14 for you; right? 10:30

15 MR. ANSORGE: Mr. Mao -- 10:31

16 BY MR. MAO: 10:31

17 Q. Who ran the tests for you? 10:31

18 MR. ANSORGE: Objection. Argumentative. 10:31

19 Please let the witness answer your questions. And 10:31

20 asked and answered. You've been asking the same 10:31

21 question repeatedly. So when it comes to burning 10:31

22 time, I think you should consider what you're using 10:31

23 your time for. 10:31

24 BY MR. MAO: 10:31

25 Q. Let me ask you, Professor. 10:31

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1 Do you or do you not know whether or not the 10:31  
2 data sources listed in the sanctions order is actually 10:31  
3 part of your report in terms of sources considered? 10:31  
4 That's a simple yes-or-no question. Do you or do you 10:31  
5 not know? 10:31

6 A. I do not remember. As I said multiple 10:31  
7 times, it's a big report. It's been a lot of 10:31  
8 documents. I do not remember right now its source 10:31  
9 file listed in my report, what it corresponds to. I 10:31  
10 do remember what is the first two, as I said, but not 10:31  
11 the other two. 10:31

12 Q. The first two, as in the first two listed on 10:31  
13 your report, or the first two listed on the sanctions 10:32  
14 order? 10:32

15 A. The first two listed on my report. 10:32  
16 Source files, it has four bullets; right? I 10:32  
17 remember -- 10:32

18 Q. Yes. 10:32

19 A. -- the first two. I don't remember about 10:32  
20 the other two. That's -- 10:32

21 Q. Right. 10:32

22 So do you know whether or not any of those 10:32  
23 four files are files referenced in the sanctions 10:32  
24 order? 10:32

25 A. I wouldn't know. And if you want me -- you 10:32

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1 could point me to specific page in the sanctions order 10:32

2 to see if I can somehow figure it out now. I'm not 10:32

3 trying to -- 10:32

4 Q. Sure. Sure. Yeah, yeah, yeah. That's 10:32

5 fair. So let's do that. Let's go back to Exhibit 2. 10:32

6 A. Okay. 10:32

7 Q. Sorry. I've got the wrong exhibit up. 10:32

8 Okay. Going back to -- let's go to 10:33

9 page 19 -- I'm sorry -- page 28 of the .pdf, 10:33

10 paragraph 92 of the order. 10:33

11 A. Page -- what page on .pdf? I'm sorry? 10:33

12 Q. It's 29 of the .pdf. 10:33

13 A. Page 29 on the .pdf. 19; right? 10:33

14 Q. 92. Paragraph 92. 10:33

15 A. 92. I am there. Yes. 10:33

16 Please go ahead. 10:33

17 Q. Okay. You see how it refers to [REDACTED] logs in 10:33

18 which there is Chrome incognito, and that is Chrome 10:33

19 non-incognito fields in the logs in 2017? 10:34

20 A. Yes. "Specifically in connection with the 10:34

21 Google referred -- (reading to self) any of the [REDACTED] 10:34

22 logs in which the -- in the fields have been logged 10:34

23 since 2017... 10:34

24 (Witness reading to self.) 10:34

25 THE WITNESS: ...all but [REDACTED] of the [REDACTED] 10:34

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1 logs -- have been logged since June. 10:34

2 Okay. So your question is whether in my 10:34

3 analysis -- can you repeat now me question about 10:34

4 this -- 10:34

5 BY MR. MAO: 10:34

6 Q. Sure, sure, sure. 10:34

7 Those [REDACTED] logs there -- 10:34

8 A. Mm-hm. 10:34

9 Q. -- okay, with incognito bits -- 10:34

10 A. Okay. 10:34

11 Q. -- which of those logs were part of your 10:34

12 analysis in your report? 10:34

13 A. I don't remember honestly which of those 10:34

14 [REDACTED] logs have been analyzed in the context of my 10:34

15 report. 10:34

16 But as I said at the very, very beginning of 10:34

17 this line of questions, there is nothing in my report 10:35

18 that would change because of not looking at all the 10:35

19 [REDACTED] logs. There is -- these logs are either what they 10:35

20 are called P logs or B logs. And I will be happy to 10:35

21 explain to you the difference between the two because 10:35

22 it's a technical issue. 10:35

23 And regardless of whether it's a P log or a 10:35

24 B log, there is specific logic on the system with 10:35

25 respect to how there may be Chrome incognito bit is 10:35

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1 set, what it may or it may not mean, why is it there 10:35  
2 or it is not there, and so on. 10:36  
3 And since I have reviewed very carefully the 10:36  
4 system itself and how it deals with this particular 10:36  
5 bit, looking at the subset of these ■ logs is enough 10:36  
6 for me to make a solid opinion with respect to this 10:36  
7 particular bit, how it's used, how it's set, what it 10:36  
8 means, what it doesn't mean. So -- 10:36  
9 Q. So did you actually look at the code for the 10:36  
10 bit? 10:36  
11 MR. ANSORGE: Will you please let him finish 10:36  
12 answering, Mr. Mao? 10:36  
13 THE WITNESS: And the exact same analysis 10:36  
14 that I have in my report -- and, again, I will be more 10:36  
15 than happy to go through this but I don't want to jump 10:36  
16 on it if you don't want me to -- calls for all the 10:36  
17 ■ logs. There will be no difference whatsoever 10:36  
18 between one log or the other log. 10:37  
19 BY MR. MAO: 10:37  
20 Q. Let's get specific then. 10:37  
21 Go page 17 of Exhibit 2, .pdf 17. 10:37  
22 A. Okay. Page 1 of the .pdf or of the -- 10:37  
23 Q. The .pdf. 10:37  
24 A. The .pdf. 10:37  
25 I am there, yes. 10:37

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1 Q. Where do these logs appear in your report as 10:37  
2 a source in which you ran tests? 10:37

3 A. I never said that I have run tests in all of 10:37  
4 these logs. 10:37

5 Q. Okay. Did you run tests against any of 10:37  
6 these logs? 10:37

7 A. I'm trying to remember. I have to go 10:37  
8 through them one by one, but -- 10:37

9 Q. Go ahead. Please do that. 10:37

10 A. I will. 10:37

11 But let me also say that there is -- okay. 10:37

12 The opinion -- I assume that this discussion 10:38

13 is about the maybeChromeincognito field. And 10:38

14 everything I say in my report about the 10:38

15 maybeChromeincognito field is based on the totality of 10:38

16 all the documents that I have listed, all the sources 10:38

17 that I have listed -- not just the source code. All 10:38

18 the sources that I have listed on my report. 10:38

19 And I'm absolutely confident that what I say 10:38

20 about the maybeincognito -- Chromeincognito field on 10:38

21 my report with respect to what it means, how it is 10:38

22 said, what it doesn't mean, what is its purpose, 10:38

23 et cetera, et cetera, is absolutely precise. 10:38

24 And I can explain to you under all possible 10:38

25 scenarios that you would like to ask me how it is set, 10:39

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1 interrupting him far too much. We've let it run for 10:40  
2 quite a bit. Please give him a moment to answer your 10:40  
3 questions. 10:40  
4 BY MR. MAO: 10:40  
5 Q. My question is source code. 10:40  
6 A. Right. 10:40  
7 So the reason why I'm answering the words 10:40  
8 source code is because you mentioned it a couple of 10:40  
9 minutes ago. You basically said -- I don't remember. 10:40  
10 I'm sure the stenographer could repeat it, if you 10:40  
11 would like, something about source code. 10:40  
12 So if that's the only reason why I brought 10:40  
13 it up and I said source code, that the Google 10:40  
14 engineers, that they were deposed may be the ones that 10:40  
15 wrote it. I didn't say anything about me and the 10:41  
16 source code. I was referring to source code as an 10:41  
17 engineer working in this field for like decades, 10:41  
18 knowing that all this distributed network systems are 10:41  
19 based on some source code. That's what I meant. 10:41  
20 Q. Sure. So let's be clear. 10:41  
21 Did you look at any source code as part of 10:41  
22 your analysis? 10:41  
23 A. I did not look at any Google source code as 10:41  
24 part of my analysis. 10:41  
25 Q. Okay. Did you look at any Google schemas as 10:41

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1 part of your analysis? 10:41

2 MR. ANSORGE: Objection. Vague. 10:41

3 THE WITNESS: Google -- would you please 10:41

4 repeat the word? 10:41

5 BY MR. MAO: 10:41

6 Q. Log schemas. 10:41

7 MR. ANSORGE: Objection. Vague. 10:41

8 THE WITNESS: Log -- what was the next -- 10:41

9 BY MR. MAO: 10:41

10 Q. Log schemas. 10:41

11 A. Log schemas? 10:41

12 Q. Logging schemas, yes. 10:41

13 A. I'm sorry. I don't understand what you mean 10:41

14 by logging schemas. 10:41

15 You mean logs like -- 10:41

16 Q. The schemas for the logs. 10:41

17 A. I'm sorry. I don't understand. 10:41

18 Q. Do you -- sure. 10:42

19 I mean, you know what a schema is? 10:42

20 MR. ANSORGE: Objection. Vague. 10:42

21 BY MR. MAO: 10:42

22 Q. S-c-h-e-m-a. A schema. 10:42

23 A. I do know what a schema is because it's 10:42

24 actually based on the Greek root. It has a Greek 10:42

25 root, schema in Greek. But I'm not sure -- I don't 10:42

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1 understand what you mean by log schema. 10:42

2 Q. Did you look at any of the schemas for any 10:42

3 of the log sources at issue in this case? 10:42

4 A. I don't understand what is a log schema. 10:42

5 Q. Are you aware that schemas were produced for 10:42

6 data sources for Google in this case? 10:42

7 MR. ANSORGE: Objection. 10:42

8 BY MR. MAO: 10:42

9 Q. I'm not trying to trick you. I'm literally 10:42

10 telling you that they were produced. 10:42

11 So my question is whether or not you looked 10:42

12 at them? 10:42

13 A. I am aware that there were logs produced for 10:42

14 this case. I'm not sure what log schemas is. 10:43

15 Q. So structure fields, structure field lists. 10:43

16 Are you aware that that was produced in the 10:43

17 case? 10:43

18 A. Structured... 10:43

19 MR. ANSORGE: I'm sorry, Dr. Psounis. Can 10:43

20 you just wait a moment for me to lodge my objections? 10:43

21 THE WITNESS: I'm sorry. 10:43

22 MR. ANSORGE: Objection. Vague and 10:43

23 ambiguous. 10:43

24 THE WITNESS: Can you please repeat? 10:43

25 Structured... 10:43

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1 BY MR. MAO: 10:43

2 Q. Structured field lists. 10:43

3 My question is simply did you look at any 10:43

4 such things for that in this case? 10:43

5 A. Do you have an example that you could show 10:43

6 me so that maybe I can tell you I have seen something 10:43

7 like that or not? So that I -- 10:43

8 Q. No. Well, because I'm asking -- it's 10:44

9 actually important to understand whether or not you 10:44

10 looked at it. 10:44

11 A. But -- 10:44

12 Q. -- if you didn't look at source code, right, 10:44

13 and I'm trying to understand whether or not you 10:44

14 actually looked at the field structures for specific 10:44

15 data sources in the case. 10:44

16 MR. ANSORGE: Objection. Form. Asked and 10:44

17 answered. 10:44

18 THE WITNESS: I am still trying to 10:44

19 understand. I would have to hypothesize about what 10:44

20 you mean. I'm not trying not to answer. To 10:44

21 hypothesize about what you mean by log schemas. So if 10:44

22 do you have an example, please show it to me because 10:44

23 this is going to just help us move on. I have looked 10:44

24 at logs -- 10:44

25 ///

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1 BY MR. MAO: 10:44

2 Q. Are you aware of being provided any schemas 10:44

3 in this case? 10:45

4 A. I -- 10:45

5 MR. ANSORGE: Objection. Asked and 10:45

6 answered. And vague and ambiguous. 10:45

7 MR. MAO: Part of the court order, 10:45

8 Mr. Ansorge. 10:45

9 BY MR. MAO:

10 Q. Have you looked at any schemas for any data 10:45

11 sources in this case? 10:45

12 A. Without me fully understanding what schemas 10:45

13 means, I cannot give an accurate answer to this 10:45

14 question. 10:45

15 Q. Okay. Let me give you the Court order. 10:45

16 So it's not going to be Exhibit 3. It's 10:45

17 going to be Exhibit 4. 10:45

18 Okay? 10:46

19 And we'll go back to Exhibit 3 in a little 10:46

20 bit. 10:46

21 A. Exhibit 4 you said? 10:46

22 (Plaintiffs' Exhibit 4 was 10:46

23 marked for identification.) 10:46

24 MR. MAO: Mm-hm. Exhibit 4 is a 10:46

25 transmission dated November 12, 2021. 10:46

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1 THE WITNESS: I'm sorry. Let me find it 10:46  
2 out. I thought I opened it up. But maybe I need to 10:46  
3 refresh my -- ah, okay. Yes. Exhibit 4. 10:46  
4 Fax transmission. Yes, I am there. 10:46  
5 Go ahead. 10:46  
6 BY MR. MAO: 10:46  
7 Q. Okay. If you scroll down to page 5, which 10:46  
8 is the order for the Brown case -- 10:46  
9 A. Mm-hm. Yes. I'm reading the order. I'm 10:46  
10 reading line 13 now. 10:46  
11 Q. Okay. Yep. 10:46  
12 So you see this order -- 10:46  
13 A. Mm-hm. 10:47  
14 Q. And -- 10:47  
15 A. Should I look at the exhibit or. 10:47  
16 Q. You should look at these two pages, 5 and 6. 10:47  
17 A. Okay. 10:47  
18 Q. And the word "schema" appeared here. 10:47  
19 MR. ANSORGE: And, Doctor, assuming that 10:47  
20 you're not familiar with this document, you're well 10:47  
21 within your rights to familiarize yourself with it. 10:47  
22 MR. MAO: Yeah. I mean, go ahead and take a 10:47  
23 look. 10:47  
24 BY MR. MAO: 10:47  
25 Q. Okay. So you see under No. 3 there: 10:47

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1 "Accordingly, within four days of the 10:48  
2 date of this order, Google is to provide 10:48  
3 to the special master full schemas, a list 10:48  
4 of all fields and their descriptions, a 10:48  
5 list of tools used to search the 10:48  
6 respective data sources." 10:48  
7 A. Can you please tell me the full -- 10:48  
8 Q. Yeah. 10:48  
9 A. -- the line number? 10:48  
10 Q. .pdf page 8. 10:48  
11 A. And line number? 10:48  
12 Q. Starting with 3. 10:48  
13 A. .pdf 8. Okay. I didn't download this one. 10:48  
14 Okay. .pdf page 8, 1 to 3. Is this what 10:48  
15 you mean? 10:48  
16 Q. Mm-hm. 10:48  
17 A. Okay. 10:48  
18 Q. This is a Court order. 10:48  
19 A. Full schemas. Yes. 10:48  
20 Q. Okay. Right. 10:48  
21 My question -- 10:48  
22 A. If schemas is a list of all fields with 10:48  
23 their descriptions, then I can tell you what this is. 10:48  
24 Are schemas a list of all fields with their 10:48  
25 descriptions or -- 10:48

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1 Q. Yes. Yes. Let's use that. 10:48

2 A. So when I'm looking at logs, usually at the 10:49

3 top of the logs, you could have a way to have fields 10:49

4 with their descriptions, or in a separate file -- I 10:49

5 don't know if this is what schemas you're referring 10:49

6 to. Somebody may say this is a log that has, for 10:49

7 example, two columns. Column 1 is your name. 10:49

8 Column 2 is your birth date. 10:49

9 If this is what you're asking, I -- when I 10:49

10 was looking through the logs, I was aware of what 10:49

11 it's -- so let me say this as follows: 10:49

12 Logs consist of data logs or datasets 10:49

13 consist of multiple entries. Each entry 10:49

14 essentially -- each row is a separate data point in 10:50

15 the dataset or a separate -- you want to call it line, 10:50

16 row, input, entry on the log. 10:50

17 Now, usually the way they are structured is 10:50

18 that each of these lines or rows may consist of 10:50

19 multiple subentries, numbers, strings, whatnot. 10:50

20 So when we talk about fields with their 10:50

21 descriptions, we usually mean that if, for example, 10:50

22 you have a row with, let's say, four fields, so 10:50

23 essentially there are four columns on this big data 10:50

24 log, some would say, okay, what does the first field 10:50

25 mean? What is it? 10:50

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1           So I would assume that this is what you have           10:50  
2       been asking me. And when I look at the log, let's say           10:51  
3       P log and B log, right, so there are different things           10:51  
4       that they are -- multiple things that they are there           10:51  
5       at each log.           10:51

6           For example, if you look at the -- log --           10:51  
7       some of the logs, as you have -- some of the Google's           10:51  
8       logs that you have pointed out yourself, and my           10:51  
9       understanding is that this motion is about whether           10:51  
10      Google has produced all such logs or not. Some of           10:51  
11      these logs are at each of these rows that I'm           10:51  
12      describing, they may have as a field, the value, the           10:51  
13      bit value, of the maybeChromeincognito.           10:51

14           And I'm getting back to this because my           10:51  
15      understanding is that this is what you are interested           10:51  
16      in. That's the only reason.           10:51

17           Q.    Yeah, yeah, yeah. Right.           10:51

18           So what I'm interested in and -- Professor,           10:52  
19      is whether or not you asked for all of these available           10:52  
20      fields for the data sources in which you considered?           10:52

21           MR. ANSORGE: Objection. Vague. Form.           10:52

22           And when you get a chance, Counsel, we're           10:52  
23      almost at two hours. It would be great to have break.           10:52

24           THE WITNESS: Every time I look at logs, any           10:52  
25      logs, either for this case or for my research, I make           10:52



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1 master full schemas a list of all fields" 10:53

2 in caps "with their descriptions." 10:53

3 And what I'm asking you is: Did you analyze 10:53

4 that type of full schema as part of your opinion for 10:53

5 all the data sources in which you considered? 10:54

6 MR. ANSORGE: Objection. Compound. Asked 10:54

7 and answered a number of times now. And foundation as 10:54

8 well. And calls for legal conclusion. 10:54

9 And whenever you find a natural stopping 10:54

10 point, Mr. Mao, it would be great to have a break. 10:54

11 BY MR. MAO: 10:54

12 Q. Please answer my question, Professor. 10:54

13 A. I'm trying to -- 10:54

14 Q. Go ahead and look at that order again, 10:54

15 please. 10:54

16 A. No. My understanding is that I already 10:54

17 answered this, but I'm trying to paraphrase it in a 10:54

18 way that both of us are happy; right? I don't want to 10:54

19 make -- I don't this to look as if I'm -- so the 10:54

20 analysis that I have conducted is take -- when -- the 10:54

21 analysis that I have conducted using logs is taking 10:55

22 into consideration all the information inside these 10:55

23 logs. 10:55

24 How about that? 10:55

25 I could answer yes to your question. Yes, I 10:55

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1 have considered everything, but since I can't -- 10:55

2 Q. No, no, no, no. But my question -- okay. 10:55

3 A. You see -- 10:55

4 Q. Have you requested -- have you requested -- 10:55

5 have you requested -- okay. Have you requested full 10:55

6 schemas with a list of all fields and their 10:55

7 descriptions for each of the data sources in which you 10:55

8 considered and listed in your report? 10:55

9 MR. ANSORGE: Objection. Asked and answered 10:55

10 a number of times now. 10:55

11 Love that break when you get a chance, 10:55

12 Mr. Mao. 10:55

13 THE WITNESS: If -- how about that? If I 10:55

14 had any doubt about any data entry in any of the logs 10:55

15 I have looked at any point in time, I can assure you 10:55

16 that for sure I have requested additional information 10:56

17 to make sure that I have a complete understanding of 10:56

18 all the data points inside the log that I have been 10:56

19 looking at. 10:56

20 And I believe this is the essence here. It 10:56

21 is not the case ever that I was drawing conclusions 10:56

22 from a log whose contents I don't fully understand. 10:56

23 BY MR. MAO:

24 Q. But have you -- have you run across any 10:56

25 logs, okay, in which you do not believe that the full 10:56

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1 schema was reflected? 10:56

2 MR. ANSORGE: Objection. Vague. Compound. 10:56

3 THE WITNESS: I don't think so. I 10:57

4 wouldn't -- you mean somebody change the logs? 10:57

5 Somebody messed with the logs and gave me... 10:57

6 BY MR. MAO: 10:57

7 Q. Or the logs you're reviewing is not the full 10:57

8 log. That's what I'm asking. 10:57

9 A. Somebody -- yes. 10:57

10 Q. I'm trying to understand whether or not when 10:57

11 you looked at all the data sources, you said, "Hey, 10:57

12 can you make sure you give me the full log?" 10:57

13 A. Okay. Now I understand -- 10:57

14 MR. ANSORGE: Mr. Mao, asked and answered. 10:57

15 And please stop interrupting the witness. 10:57

16 MR. MAO: I don't think so. I think -- 10:57

17 MR. ANSORGE: He's trying to respond. 10:57

18 MR. MAO: -- the effect here is very clear. 10:57

19 He's helping being elucidated so that we can actually 10:57

20 talk about and move on to the next topic. 10:57

21 MR. ANSORGE: Right. But I'm also thinking 10:57

22 of the court reporter who has been going for almost 10:57

23 two hours. I think at some point pretty soon a break 10:57

24 would be appropriate. 10:57

25 MR. MAO: I'd like to just get through these 10:57

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1 questions. Yeah. 10:57

2 THE WITNESS: I do not -- I never felt or 10:57

3 thought that the logs I am being provided with are -- 10:58

4 you know, are not clear to me with respect to what 10:58

5 they mean and what they have. 10:58

6 And if you are alluding that somebody may 10:58

7 have removed parts of the log and gave them to me, 10:58

8 this is not a possibility that I have considered. 10:58

9 When somebody's giving me a log, and I'm 10:58

10 saying I would like to see this log, I would assume 10:58

11 that this is the log that I am to study. If there is 10:58

12 a something -- 10:58

13 So have I every single time asked for what 10:58

14 you call a full schema? 10:58

15 Since I'm not an attorney and I'm not aware 10:58

16 of all these motions that you are presenting here, 10:58

17 right, you do understand that, I am not into -- as an 10:59

18 expert witness, a technical expert witness, I am not 10:59

19 into, right, make sense, saying -- 10:59

20 BY MR. MAO:

21 Q. Right. 10:59

22 A. -- "Are you giving me the full log?" 10:59

23 Of course I'm getting the full log is my 10:59

24 understanding. And if I see something that it's 10:59

25 weird, I would always bring this up. 10:59

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1 Q. Right. 10:59

2 A. So there's nothing that looked weird to me 10:59

3 in the logs that I have considered. 10:59

4 But I don't want, as a matter of precision, 10:59

5 use this particular wording I have used -- I have 10:59

6 forever seen a log, requested the full schema. 10:59

7 Because this full schema is not in my vocabulary. You 10:59

8 see what I mean? It's something that the Court 10:59

9 described like that in the context of this case for 10:59

10 you guys. You guys are the -- for the attorneys, the 10:59

11 lawyers, my counsel to handle. You understand what I 10:59

12 mean? 10:59

13 I am after this. So you guys figure out 10:59

14 whatever is going on and, then I'm -- I am a technical 11:00

15 expert; right? I'm saying can I have the logs, 11:00

16 please? And then I'm getting the logs. And then I'm 11:00

17 making sure I fully understand what is in the logs I'm 11:00

18 looking at. 11:00

19 I am assuming that you guys are talking to 11:00

20 each other and the Court and you are figuring out what 11:00

21 should and should -- hopefully this clarifies further. 11:00

22 BY MR. MAO: 11:00

23 Q. Right. 11:00

24 So all the logs you listed in your report 11:00

25 are all the logs in which you looked at. 11:00

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1                   Is that correct?                   11:00

2                   MR. ANSORGE: Objection. Mischaracterizes           11:00

3                   prior testimony.                   11:00

4                   THE WITNESS: I'm not sure about that           11:00

5                   because there are a lot of logs. Definitely I have           11:00

6                   looked at the logs that I list in my report. There           11:00

7                   could be other logs, but I don't know. I don't want           11:00

8                   to say something and then mess up the legal stuff           11:00

9                   because of my ignorance about the legal stuff. You           11:00

10                  understand? I'm not a lawyer.           11:00

11                  I did my best to include on my report logs           11:00

12                  that I have looked at.           11:01

13                  BY MR. MAO:           11:01

14                  Q. And you do not believe that there is any           11:01

15                  reason for you to ask for additional logs in addition           11:01

16                  to what you have listed in your report in order to           11:01

17                  clarify your analysis when you wrote your report.           11:01

18                  Isn't that correct?           11:01

19                  MR. ANSORGE: Objection. Form. Compound.           11:01

20                  THE WITNESS: In my report, I say that if           11:01

21                  you have information -- again, I'm saying this -- I           11:01

22                  believe what you're thinking -- but if new information           11:01

23                  comes to light, I reserve the right to revisit,           11:01

24                  et cetera, et cetera.           11:01

25                  Based on the information I have seen up to           11:01



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1       this moment that I'm talking to you, I do not believe       11:01  
2       that I need to request additional logs. I believe       11:01  
3       that what is in my report that we both have as of       11:01  
4       June 7th is precise, accurate, and valid with all the       11:02  
5       information I have received myself up to this moment       11:02  
6       that we are talking.       11:02  
7       BY MR. MAO:  
8             Q.     Right.       11:02  
9             And your report, right, the last time in       11:02  
10       which you received logs and sources was June 7, 2022.       11:02  
11            Is that correct?       11:02  
12            Because you wrote your opinion then.       11:02  
13            MR. ANSORGE: Objection. Mischaracterizes       11:02  
14       prior testimony.       11:02  
15            And -- what about that break, Mr. Mao?       11:02  
16            THE WITNESS: Maybe we should have a break.       11:02  
17            MR. ANSORGE: We're at two hours.       11:02  
18            MR. MAO: Wait, wait, wait. We're pending a       11:02  
19       question.       11:02  
20            Okay?       11:02  
21            Ms. Stenographer, can you please just read       11:02  
22       back the question? I'm just trying to finish this.       11:02  
23            (Court Reporter reads back.)       11:02  
24            THE WITNESS: I remember something now.       11:03  
25            Okay. I don't think that the last logs I       11:03

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1 have reviewed were as of June 7th because I recall 11:03  
2 seeing some -- seeing some logs after that about the 11:03  
3 maybeincognitoChrome bit. 11:03  
4 So the Exhibit 2 was saying that Google 11:03  
5 didn't provide all the logs and there were additional 11:04  
6 logs; correct? 11:04  
7 BY MR. MAO: 11:04  
8 Q. Yeah. They were sanctioned for that. 11:04  
9 A. Right. 11:04  
10 Q. Yes. 11:04  
11 A. I recall seeing -- I recall seeing a log 11:04  
12 recently. My understanding is that Google produced 11:04  
13 some additional logs; right? 11:04  
14 Q. Yes. In terms of the names identifying 11:04  
15 them, yes. 11:04  
16 A. So I recall seeing parts of these additional 11:04  
17 logs. I believe they were produced after -- I don't 11:04  
18 know, actually. I don't want get into the dates 11:04  
19 stuff. I'm not a technical expert. But I recall 11:04  
20 seeing parts of this additional logs that Google 11:04  
21 produced recently. I don't know exactly when. And 11:04  
22 that was recent. So it must be after -- it is after 11:05  
23 June 7th. 11:05  
24 Q. Other than that, okay, are all the logs in 11:05  
25 which you've seen listed in your June 7 report and 11:05

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1 received by June 7th, 2022 for your report? 11:05

2 MR. ANSORGE: Objection. Mischaracterizes 11:05

3 prior testimony. And asked and answered so many times 11:05

4 over now. 11:05

5 THE WITNESS: So as I said, I did the best 11:05

6 job I could to list all the logs I have seen prior to 11:05

7 June 7th on my report dated June 7th. But I cannot be 11:05

8 a hundred percent certain because there are so many 11:05

9 logs and so many documents that there is no other log 11:05

10 or data that I have seen that somehow failed to find 11:05

11 its way in the report. I'm being entirely, you know, 11:05

12 accurate and... 11:06

13 MR. ANSORGE: Mr. Mao, it's starting to 11:06

14 verge on harassment. We're past two hours now. 11:06

15 MR. MAO: You're -- we can take a break. 11:06

16 Your witness hasn't answered -- 11:06

17 MR. ANSORGE: Absolutely -- 11:06

18 MR. MAO: Yeah. 11:06

19 MR. ANSORGE: -- he did. And I've been 11:06

20 requesting -- 11:06

21 MR. MAO: No, he did not. 11:06

22 MR. ANSORGE: -- a break at least for the 11:06

23 last 20 minutes. 11:06

24 He did, and you can go and review the 11:06

25 testimony in the break. 11:06

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1 But I think a break is appropriate for 11:06  
2 everybody. 11:06  
3 MR. MAO: Sure. Let's take a break. I will 11:06  
4 have questions. 11:06  
5 Thank you. 11:06  
6 THE WITNESS: Thank you very much. 11:06  
7 THE VIDEOGRAPHER: Going off the record. 11:06  
8 The time is 11:06 a.m. 11:06  
9 (Break taken in proceedings.) 11:06  
10 THE VIDEOGRAPHER: Back on the record. The 11:20  
11 time is 11:20 a.m. 11:20  
12 BY MR. MAO: 11:20  
13 Q. Hi, Professor. 11:20  
14 Did you and Mr. Ansorge speak during the 11:20  
15 break? 11:20  
16 A. We do have -- we had a brief chat. He 11:20  
17 reminded me to take my time reviewing documents, if I 11:20  
18 have to. 11:20  
19 Q. Did you talk anything about the substance of 11:20  
20 the case? 11:20  
21 A. No. 11:20  
22 Q. Did you talk about anything about the 11:20  
23 substance of your testimony? 11:20  
24 A. No. 11:20  
25 Q. Okay. So going back into Exhibit 2, if you 11:20

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1 don't mind. 11:21

2 A. Exhibit 2. Let me get back to my -- 11:21

3 Q. Yeah. No problem. 11:21

4 And I'm going to go to page 17, by the way, 11:21

5 once you're there. 11:21

6 A. Exhibit -- ah, yeah, yeah, yeah. Exhibit 2 11:21

7 is the one we were discussing before. Yes. I have a 11:21

8 local copy. I'm just going to look at my local copy 11:21

9 again. 11:21

10 Perfect. Yes, I'm there. 11:21

11 Q. Okay. 11:21

12 A. What page you would like me to go -- 11:21

13 Q. 17 of the .pdf On .pdf pagination 17. 11:21

14 A. It's a different... 11:21

15 I open the document of the body and not with 11:21

16 the other one. 11:21

17 So can you tell me page 17 of the .pdf, what 11:21

18 page it is on the -- 11:21

19 Q. It would be 7. 11:21

20 A. Okay. 11:22

21 Q. It looks like this. 11:22

22 A. Yeah, yeah, yeah. I'm almost there. 11:22

23 Page 17 of 58. A list of logs. 11:22

24 Q. Yes. 11:22

25 A. Yes, I'm there. 11:22

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1 Q. My question is: Are these the logs that you 11:22  
2 said that you saw for the first time after June 7? 11:22  
3 MR. ANSORGE: Objection. Mischaracterizes 11:22  
4 prior testimony. 11:22  
5 THE WITNESS: I don't -- let me -- I don't 11:22  
6 remember seeing these logs, no. I don't remember. I 11:22  
7 know I saw some additional logs, but I don't remember 11:23  
8 their name. 11:23  
9 BY MR. MAO: 11:23  
10 Q. Were these logs -- 11:23  
11 A. I also saw a list of logs but not the logs 11:23  
12 themselves. There are too many logs. I'm sorry. I 11:23  
13 wouldn't remember by looking at the names. 11:23  
14 Q. But these things, these lists and logs that 11:23  
15 you saw after your report was issued, these are not 11:23  
16 logs or lists of logs actually referenced on your 11:23  
17 report. 11:23  
18 Is that correct? 11:23  
19 MR. ANSORGE: Objection. Form. 11:23  
20 THE WITNESS: I don't -- I cannot answer 11:23  
21 this precisely because I still don't remember what are 11:23  
22 the last two in this list. 11:23  
23 As I said, I'm trying to remember exactly 11:23  
24 what I said. I said I remember looking at parts of a 11:23  
25 log after June 7th. 11:24

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1 I don't remember which log is this, meaning 11:24  
2 definitely I wouldn't remember the name of the log. 11:24  
3 And I also remember seeing a list of logs after 11:24  
4 June 7th. 11:24

5 That's what I can tell with certainty. 11:24

6 BY MR. MAO: 11:24

7 Q. I'm simply trying to figure out, Professor, 11:24  
8 whether or not you were given logs or lists of logs 11:24  
9 after your report was issued that was not initially 11:24  
10 listed on your report? 11:24

11 MR. ANSORGE: Objection. Form. 11:24

12 THE WITNESS: No. I apologize for not being 11:24  
13 able to help. I honestly don't remember all the 11:24  
14 logs -- all the names of the logs in this case. But 11:24  
15 I'm going to -- let me say again, I said it already, 11:24  
16 but since all these logs about the -- I assume -- no. 11:24  
17 They are about the maybeChromeincognito field, there 11:25  
18 is nothing -- nothing in my narrative, I believe, the 11:25  
19 one about the maybe incognito field that would depend 11:25  
20 on a specific log. 11:25

21 So I'm telling you that's my technical 11:25  
22 expert opinion on this. 11:25

23 I have a good understanding of the type of 11:25  
24 logs that Google keeps after looking at the documents, 11:25  
25 that they describe the architecture of the system, how 11:25

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1 they set this fields, et cetera. And the opinion 11:25  
2 about the maybeChromeincognito field that I have in 11:25  
3 there -- and, again, I would be more than happy to go 11:25  
4 through it and with any scenarios you may want to ask 11:25  
5 me -- does not really depend on a specific log. It is 11:25  
6 valid across all logs, given my understanding of the 11:25  
7 logs that they have and how they populate them. 11:26

8 I'm saying this because it may help you. 11:26  
9 That's why I'm saying this, meaning -- 11:26

10 BY MR. MAO:

11 Q. Yeah. So -- 11:26

12 A. -- in particular log A or log B is the one 11:26  
13 that I have seen or I am listing on the report. It's 11:26  
14 immaterial, in my opinion. I'm just saying, given how 11:26  
15 I'm forming my opinion. 11:26

16 Q. So in your opinion, you don't actually need 11:26  
17 to look at the logs themselves or the data generated 11:26  
18 from the logs in order for you to make your 11:26  
19 conclusions, the conclusions that you made. 11:26

20 Is that correct? 11:26

21 MR. ANSORGE: Objection. Form and 11:26  
22 mischaracterizes prior testimony. 11:26

23 THE WITNESS: So this is not what I said. I 11:26  
24 didn't say that I don't need to look at the logs. I 11:26  
25 said that my opinion is valid for all, regardless of 11:26



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1 specific logs, given that I have a very good 11:27  
2 understanding of the type of logs about the data at 11:27  
3 issue in this case. 11:27

4 I don't want to make a general statement 11:27  
5 but, you know, also looking at logs is not helpful. 11:27

6 BY MR. MAO: 11:27

7 Q. But you realize -- well, do you have to look 11:27  
8 at logs in order for you make an opinion in this case? 11:27

9 A. Depends on the opinion. If you want to ask 11:27  
10 me about a specific opinion -- 11:27

11 Q. Sure. Let's start with opinion 1. 11:27

12 A. Opinion 1. 11:27

13 Q. "Users can be readily identifiable from the 11:27  
14 data at issue." 11:27

15 A. So let me -- 11:27

16 MR. ANSORGE: Objection. Mischaracterizes 11:28  
17 Exhibit 1. 11:28

18 THE WITNESS: So what is your question about 11:28  
19 opinion 1? 11:28

20 BY MR. MAO: 11:28

21 Q. Right. 11:28

22 You said opinion 1, the way you interpret 11:28  
23 it, right, is both that it's Mr. Hochman's opinion 11:28  
24 that users can be readily identified from the data at 11:28  
25 issue is incorrect. And then you also agree with me 11:28

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1 that you were saying that users can be readily 11:28  
2 identified from the data at issue is incorrect is 11:28  
3 also -- it's an implication of that opinion. 11:28

4 MR. ANSORGE: Objection. Form. Compound. 11:28  
5 Vague and ambiguous. 11:28

6 BY MR. MAO: 11:28

7 Q. And my question to you -- my question to 11:28  
8 you, Professor, is do those two opinions or two parts 11:28  
9 of the same opinion, however you want to phrase it, 11:28  
10 depend on you looking at logs and the data that would 11:28  
11 be generated from those logs? 11:28

12 A. They do not depend on any specific log 11:29  
13 because -- and let me summarize a little bit why I'm 11:29  
14 saying this. 11:29

15 Because first, the data at issue here are 11:29  
16 not associated at any point with a Google account, you 11:29  
17 know. There is no GAIA. 11:29

18 I don't want to use technical terminology 11:29  
19 and confuse anybody. But that's one reason, and 11:29  
20 that's a fact, regardless of whether I'm looking at a 11:29  
21 specific log, log A or log B. 11:29

22 What is more, this data, the data at issue, 11:29  
23 are essentially stored in a way that it's an 11:29  
24 unidentified state, an orphan state -- I'd be happy to 11:29  
25 explain what I mean with these terms -- because they 11:29

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1 are keyed to identifiers that they are pseudonymous. 11:30

2 When they are identified as flowing through the 11:30

3 system, they are also encrypted. 11:30

4 These identifiers are not linked to any 11:30

5 users, and they are unique to each private browsing 11:30

6 session. 11:30

7 And I'm saying this because that's the data 11:30

8 at issue; right? The data during private browsing 11:30

9 session. Or they could be keyed to be complete to 11:30

10 pseudonymous identifiers related to website viruses, 11:30

11 you know, what is usually called first-party cases. 11:30

12 Again -- 11:31

13 Q. How do you know that to be true, those 11:31

14 statements you just made? How do you know that they 11:31

15 are empirically true? 11:31

16 A. I will answer this, let me finish what I was 11:31

17 saying before, just to complete my sentence. 11:31

18 Like, you know, PPID, or what is called user 11:31

19 IDs or analytics user IDs. There are too many names. 11:31

20 Sometimes they're not even key to any identifiers at 11:31

21 all. 11:31

22 So how do I know that the two statements I 11:31

23 made are true? 11:31

24 Because the way the system is architected, 11:31

25 designed, and operated is described in documents. And 11:31

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1 this is true for any network distributed system, 11:32  
2 including Google's. And it is a necessity, if you 11:32  
3 think about it because there are hundreds, if not 11:32  
4 thousands of engineers involved. So there are 11:32  
5 documents that they are basically telling everybody 11:32  
6 what they should be doing, what the system should be. 11:32

7 I've been involved in designing distributed 11:32  
8 systems, and I can tell you there is no way out of it. 11:32  
9 You have to do that, you have to create these 11:32  
10 documents that describe the architecture of the system 11:32  
11 all the way down to -- 11:32

12 Q. Right, right, right. Let's stop there -- 11:32

13 MR. ANSORGE: Mr. Mao, please -- 11:32

14 MR. MAO: No, no, no, no. 11:32

15 MR. ANSORGE: -- don't interrupt the 11:32  
16 witness. He was in the middle of his response and 11:32  
17 you've been jumping on the end and the middle of his 11:32  
18 questions (sic) -- 11:32

19 MR. MAO: Well, yeah, because he's 11:32  
20 running -- he's running on the responses. And I am 11:32  
21 going to -- well, otherwise, I'm going to have to seek 11:32  
22 to compel him to come back more for more time. 11:32  
23 Because he's not answering my questions. 11:32

24 BY MR. MAO:

25 Q. Professor, look, what I'm trying to 11:32

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1 understand is these systems you were just talking 11:32  
2 about, right, okay, do you understand that the way 11:32  
3 that data is stored and used in this case is actually 11:32  
4 in dispute? 11:33  
5 You understand that; correct? 11:33  
6 MR. ANSORGE: Objection. Vague. 11:33  
7 BY MR. MAO: 11:33  
8 Q. For example, right, like that people cannot 11:33  
9 be identified; right? You say people cannot be 11:33  
10 identified. Mr. Hochman says that people -- 11:33  
11 Dr. Hochman says that they can be identified. 11:33  
12 That is actually in dispute. 11:33  
13 Do you and I agree on that between the 11:33  
14 parties? 11:33  
15 A. Mr. Hochman's opinion is different than mine 11:33  
16 with respect to whether they can or they cannot be 11:33  
17 identified. 11:33  
18 But with all due respect, I believe that 11:33  
19 Mr. Hochman is wrong, and they cannot be identified. 11:33  
20 And I'm explaining why in my report. 11:33  
21 Q. Right. Right. 11:33  
22 So you said that you looked at systems. 11:33  
23 Now I'm trying to understand what -- how did 11:33  
24 you go about testing the validity of this dispute at 11:33  
25 Google? 11:33

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1 MR. ANSORGE: Objection. Form. Vague. 11:33

2 BY MR. MAO: 11:33

3 Q. There's a dispute about how data is actually 11:34

4 stored and used. 11:34

5 How did you go about scientifically proving 11:34

6 that what that you believe is actually empirically 11:34

7 true? 11:34

8 You're telling me that we don't necessarily 11:34

9 have to look at the data. 11:34

10 So I'm asking, okay, if you didn't actually 11:34

11 have to look at the data, what did you do to go 11:34

12 verify, right, empirical analysis of how the data is 11:34

13 actually stored and used? Please tell me the 11:34

14 methodology. 11:34

15 MR. ANSORGE: Objection. Compound. Form, 11:34

16 and argumentative. 11:34

17 THE WITNESS: So let me answer as follows by 11:34

18 saying, first, as a first matter, I am not offering an 11:34

19 opinion on my rebuttal about how you validate whether 11:34

20 an architecture document -- about how you architect a 11:34

21 network distributed system, how you validate 11:35

22 whether -- what the document is describing about how 11:35

23 data are stored and used. I'm not offering an opinion 11:35

24 about how you do this, as you say, empirically. I 11:35

25 don't have an opinion of this on my report. We should 11:35

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1 agree on that. 11:35

2 This does not mean that I cannot offer some 11:35

3 thoughts. I can offer thoughts for you, if you want. 11:35

4 So I've been working in this -- in this 11:35

5 field for many, many, many years. I don't want to get 11:35

6 into the legal aspects. I'm not a lawyer. I can tell 11:35

7 you what I do as an engineer, as a researcher. 11:35

8 So if I have a physical documentation, like 11:36

9 I do have here, that describes how a system is 11:36

10 architected, including how data are being stored and 11:36

11 how data are being used, then I consider this to be a 11:36

12 valid and accurate source of information. And I can 11:36

13 form opinions that they are of merit based on these 11:36

14 documents. 11:36

15 Now, in addition, one -- let's say I have my 11:37

16 own system. I build a system with my students and I 11:37

17 create a document, I publish a paper, and it describes 11:37

18 the system, the architecture of the system, how it 11:37

19 operates. 11:37

20 You know, somebody could always say, "Okay. 11:37

21 Can you give me the source code such that I install it 11:37

22 on my machine and I'm going to run it myself?" 11:37

23 But this doesn't mean that somebody cannot 11:37

24 form an opinion, a valid opinion, on the basis of the 11:37

25 official description of the system. 11:37

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1           For example, when we publish papers, we           11:37  
2     don't provide source code. We describe the system in     11:37  
3     detail, and the reviewers are reviewing the paper and     11:38  
4     they decide whether this is a meritable paper to be     11:38  
5     accepted or not in, you know, very selective           11:38  
6     conferences and journals based on the description of     11:38  
7     the system that we are offering.                         11:38

8           In all distributed systems conferences, this     11:38  
9     is how it's done.   11:38

10           And the same thing when we give                 11:38  
11     presentations, we have slides and we explain the       11:38  
12     architecture and how the system works, and it's based   11:38  
13     on that description that people form opinions. So...   11:38

14     BY MR. MAO:

15           Q.     So, Professor, can I ask then, like, does     11:38  
16     that mean that you do not believe that your opinion is   11:38  
17     challenging the accuracy of Google's descriptions in     11:38  
18     their documentation?                                     11:38

19           MR. ANSORGE: Objection. Vague.                   11:38

20           MR. MAO: Yeah. So let me restate that.           11:38  
21     That is a bad question, Mr. Ansorge.                   11:39

22     BY MR. MAO:

23           Q.     Do you agree with me that your opinions do   11:39  
24     not dispute the accuracy of Google's technical           11:39  
25     documentation?   11:39



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1           A.    I am basing my opinions in a number of           11:39  
2           sources, including Google's documentation about the           11:39  
3           architecture of the system.           11:39

4                    I am taking it that it's not a fake           11:39  
5           document. It's a document that was produced by           11:39  
6           Google, by the Google engineers that they have           11:39  
7           architected and designed a particular system, and it           11:40  
8           is presenting how the system is designed and how the           11:40  
9           system operates.           11:40

10                   Of course, there are nuances. You have to           11:40  
11           make sure the document is updated; right? The           11:40  
12           document is recent enough. There haven't been           11:40  
13           changes. Because this is a dynamic environment we are           11:40  
14           talking about here; right? They make changes in other           11:40  
15           software companies.           11:40

16                   I'm making sure of all that. But the basis           11:40  
17           of my opinion, as you said, is the documents that I           11:40  
18           list.           11:40

19                   And by listing them there, there is an           11:40  
20           assumption that, yeah, I'm not saying I'm listing a           11:40  
21           document that I don't trust, if this is what you're           11:40  
22           asking. I'm listing a document. So I'm listing a lot           11:40  
23           of documents in my report. I am going by -- I'm going           11:40  
24           personally by what the documents are saying and by all           11:40  
25           my experience in this area, and all of the other           11:41

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1 information and knowledge that I have. 11:41

2 Q. Got it. 11:41

3 So if a Google documentation say that users 11:41

4 in incognito can be identified, do you have any basis 11:41

5 to dispute that? 11:41

6 A. I'm sorry. If what? 11:41

7 Q. If Google documentation says that incognito 11:41

8 users can be identified, do you have any basis to 11:41

9 dispute that? 11:41

10 MR. ANSORGE: Objection. Vague. If there's 11:41

11 a specific document, why don't you show it to the 11:41

12 witness, Mr. Mao. 11:41

13 MR. MAO: I'm asking him the basis for his 11:41

14 opinions, his methodology. 11:41

15 THE WITNESS: It would be very helpful if 11:41

16 you could produce a document that may say something to 11:41

17 that effect. 11:41

18 BY MR. MAO: 11:41

19 Q. But, sir, with all due respect, you're 11:41

20 saying that you're not testing the validity of the 11:41

21 documentation. 11:41

22 So if I show you a Google documentation that 11:41

23 shows the contrary, would -- would your opinion 11:42

24 equally apply and say that that's valid? 11:42

25 A. As I said, if you have an -- 11:42

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1 MR. ANSORGE: Objection. Incomplete 11:42  
2 hypothetical, and form. 11:42  
3 THE WITNESS: If you have -- I'm sorry. 11:42  
4 Okay. If you have a document, a specific 11:42  
5 document that says something like that, it would 11:42  
6 facilitate a lot of this discussion. It would not -- 11:42  
7 it would use to be hypothetical. 11:42  
8 The reason why I'm saying this, I'm not 11:42  
9 trying to not answer, is the following: 11:42  
10 What is a document? It could be an opinion 11:42  
11 of an employee. It could be an e-mail with something 11:42  
12 that somebody may hypothetically assume. 11:42  
13 What kind of a document are we talking 11:42  
14 about? When is the document dated? Is it an official 11:42  
15 document? Is it Main document describing the 11:42  
16 architecture? Or is it do an -- is it a potential 11:42  
17 idea that never got implemented? 11:42  
18 Do you see what I mean? So -- 11:42  
19 Q. Sure, sure, sure. 11:43  
20 So are you -- are you testing -- I guess 11:43  
21 part of your opinion, are you testing the validity of 11:43  
22 either what the plaintiffs' cite Google's documents to 11:43  
23 be versus what Google's citing the documents to be? 11:43  
24 Like are you testing the validity of that either side 11:43  
25 in your opinions? 11:43

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1 MR. ANSORGE: Objection -- objection. 11:43

2 Vague. Compound, and form. 11:43

3 BY MR. MAO: 11:43

4 Q. Because, Professor, the problem is you're 11:43

5 saying on the one hand, "I don't need to test the 11:43

6 data," and on the other hand, you're not saying that 11:43

7 you're necessarily trusting the integrity of the 11:43

8 documentation; right? 11:43

9 So it's like which one is it? 11:43

10 MR. ANSORGE: Yeah. Objection to attorney 11:43

11 testimony. Same objection. 11:44

12 THE WITNESS: I did not say either of those 11:44

13 two things. I am not saying that, you know, I don't 11:44

14 necessarily trust you said the documentation. I 11:44

15 didn't say that. 11:44

16 I actually said that source documentation 11:44

17 that I include is a documentation that I have taken 11:44

18 into consideration. 11:44

19 And, for example, if you see two pieces of 11:44

20 documents that they are contradictory, right, then you 11:44

21 may look at the third or a fourth piece of document to 11:44

22 form an opinion. Abstract -- this is hypothetical. 11:44

23 So I am not saying that I don't trust the 11:44

24 documents I'm citing. Quite the opposite. I'm -- I'm 11:44

25 citing sources. I am taking into consideration what 11:44

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1 the source documents are saying. 11:44

2 And then I'm following an opinion using the 11:44

3 totality of the picture, if you wish, that these 11:45

4 documents are painting, in view of my experience of 11:45

5 this. And I am not saying either that systems -- I'm 11:45

6 not making a general statement that systems testing, 11:45

7 the testing itself, you know, has no use. 11:45

8 I would -- I don't want to, you know, get 11:45

9 too general here, Mr. Mao, but just think of the 11:45

10 following: 11:45

11 When we have disputes in academia about the 11:45

12 system, say, and someone says, "Can you run some tests 11:45

13 on your system?" Or somebody may say, "I want 11:45

14 complete access of your system. I'm going to" -- "I 11:45

15 want you to give me complete access. I'm going to -- 11:45

16 just send me the source code of your system. I'm 11:45

17 going to install it on my own computers and I'm going 11:46

18 to run all kind of things I want to run." 11:46

19 You know, you can keep going down this path, 11:46

20 and then somebody is going say, "And how are you going 11:46

21 to test the system? What kind of scenarios are you 11:46

22 going to try?" 11:46

23 There are billion different types of 11:46

24 scenarios. 11:46

25 If you could -- I mean, in the area of 11:46

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1 network distributed systems, the systems are complex. 11:46

2 We can go on and on and on for multiple 11:46

3 lifetimes. 11:46

4 BY MR. MAO: 11:46

5 Q. Sure. Yeah. I kind of get it. 11:46

6 But, like, Professor, you yourself -- you 11:46

7 yourself agree, you didn't actually go in to test 11:46

8 Google systems; right? 11:46

9 A. Right. 11:46

10 Q. Okay. So let's go back for a moment then to 11:46

11 Exhibit No. 3. 11:46

12 Okay? 11:46

13 If you don't mind pulling it out. I had 11:46

14 introduced that some time ago. 11:46

15 A. I will go there. Give me one second. 11:46

16 Q. Yeah. No problem. 11:46

17 And my first question is going to be whether 11:46

18 or not you've seen that? 11:46

19 A. Let me find it first. One second there. 11:46

20 Exhibit 3. Okay. 11:46

21 (Plaintiffs' Exhibit 3 was 11:46

22 marked for identification.) 11:46

23 THE WITNESS: Give me one second to download 11:47

24 it so I can open it locally. 11:47

25 I did that. Almost there. Exhibit 3. 11:47

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1                   Okay. It's on my screen. Now let me scroll                   11:47  
2                   through it.                   11:47  
3                   BY MR. MAO:                   11:47  
4                   Q.     Yeah.                   11:47  
5                   So just so -- you know, this is a follow-up                   11:47  
6                   declaration on additional logs as a response to the                   11:47  
7                   order that you had seen that was Exhibit 2.                   11:47  
8                   A.     This does ring a bell, yes. I believe I                   11:48  
9                   have seen this before.                   11:48  
10                  Q.     All right. So you have seen this. Okay.                   11:49  
11                  When did you see this?                   11:49  
12                  A.     At some point -- I'm sorry. Go ahead.                   11:49  
13                  Q.     Oh, no, no. I was asking you, when did you                   11:49  
14                  see this?                   11:49  
15                  A.     I don't remember exactly. Obviously after                   11:49  
16                  my report was submitted since it's dated a week after.                   11:49  
17                  I mean, it should be within -- during the last month                   11:49  
18                  or so. Summertime is also a little bit -- I don't                   11:49  
19                  remember exactly.                   11:49  
20                  Q.     Right.                   11:49  
21                  So you see the table of logs on Exhibit A?                   11:49  
22                  A.     I do see them, yes.                   11:49  
23                  Q.     Were any of those logs considered as part of                   11:49  
24                  your report and analysis?                   11:49  
25                  A.     I believe no. Because clearly they didn't                   11:50

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1 exist. At least for me they were not available to me 11:50  
2 before June 7, I assume, based on what I quickly 11:50  
3 glanced through the document. I can read it again, 11:50  
4 the first paragraphs. They kind of show some timing. 11:50  
5 As I said, Mr. Mao -- 11:50  
6 Q. Yeah -- 11:50  
7 MR. ANSORGE: No, no, no. Don't interrupt 11:50  
8 the witness. 11:50  
9 THE WITNESS: Again, I'm saying this, again, 11:50  
10 to try to be helpful. I don't remember the names of 11:50  
11 all the logs that I may have seen; right? So -- but I 11:50  
12 can tell you for a fact that based on what I'm reading 11:50  
13 in this declaration, it appears that these logs 11:50  
14 weren't even available before June 7th. So I can say 11:50  
15 I haven't obviously considered these logs for any of 11:51  
16 the analysis in my report that it's dated June 7th. I 11:51  
17 can say that with certainty. I can. 11:51  
18 Even though I don't remember the name of the 11:51  
19 logs, just the fact that they were not available makes 11:51  
20 me certain that I have not considered them for my 11:51  
21 analysis by June 7. 11:51  
22 BY MR. MAO: 11:51  
23 Q. Can you do me favor and go back up to 11:51  
24 paragraph 4 -- 11:51  
25 A. Sure. 11:51

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1 Q. -- of this? 11:51

2 A. Yes. 11:51

3 Q. Do you mind -- so that thing about the 11:51

4 two-week investigation, you see there in paragraph 4? 11:51

5 A. Yes. I read that. 11:51

6 Q. You see how that is referring to 11:51

7 paragraph 2, that the Court had ordered that Google 11:51

8 must provide plaintiffs with a representation in 11:51

9 writing no later than May 31st, 2022; that other than 11:51

10 the logs identified thus far as containing incognito 11:52

11 detection bits, no other such logs exist. 11:52

12 Do you see that there? 11:52

13 A. I do see it. 11:52

14 Q. Were you involved at all in the 11:52

15 investigation ordered by that Court -- by the Court in 11:52

16 this paragraph 2? 11:52

17 A. No. 11:52

18 Q. Were you involved in the two-week 11:52

19 investigation referenced by Mr. Sramek in working with 11:52

20 Google employee Matt Heron? 11:52

21 A. No. I have no idea about that stuff. 11:52

22 Q. And you never spoke to Mr. Sramek or 11:52

23 Mr. Heron. 11:52

24 Is that correct? 11:52

25 A. It is correct, I have never spoken to them. 11:52

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1 Q. Who then gave you this document? And I mean 11:52  
2 Exhibit 3, this order -- I'm sorry -- this 11:52  
3 declaration. 11:52

4 Who did you get it from? 11:52

5 A. By my counsel. They showed me the document 11:52  
6 like a month ago, a few weeks ago. 11:53

7 Q. When you got this document, did you request 11:53  
8 any documentation, code, or data? 11:53

9 MR. ANSORGE: Objection. Compound. 11:53

10 THE WITNESS: Not my recollection. Because 11:53  
11 this document, it's saying that there are additional 11:53  
12 logs that contain the maybeChromeincognito field than 11:53  
13 the original logs that they have been served. 11:53

14 And since, as we discussed already, I do not 11:53  
15 believe that -- you know, seeing or observing or 11:54  
16 analyzing additional logs or logs of that matter would 11:54  
17 make any change -- would have any bearing in my 11:54  
18 opinion 8 about the maybeincognito feed. 11:54

19 I don't see what could be -- it would be of 11:54  
20 no use to request them. As I said, I did not request 11:54  
21 any. But I'm also explaining why. Because this logs 11:54  
22 are P logs and B logs, like all the other logs. And 11:54  
23 the mechanism by which the maybeincognito bit is set 11:54  
24 is not in dispute, actually, even by Mr. Hochman. 11:54  
25 Mr. Hochman doesn't dispute how the maybeincognito bit 11:54

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1 is being set. 11:54

2 BY MR. MAO:

3 Q. Have you actually examined the computer 11:55

4 systems which set this bit and use the data within the 11:55

5 logs? 11:55

6 MR. ANSORGE: Objection. Vague. Ambiguous. 11:55

7 And asked and answered. 11:55

8 THE WITNESS: I believe I have already 11:55

9 answered this, that I have not. I don't have access 11:55

10 to Google's systems. 11:55

11 BY MR. MAO: 11:55

12 Q. Got it. 11:55

13 Can you take a look at Exhibit No. -- I 11:55

14 think it's 5 I just introduced. 11:55

15 (Plaintiffs' Exhibit 5 was 11:55

16 marked for identification.) 11:55

17 THE WITNESS: Exhibit 5. One -- the one 11:55

18 that is named "Sealed Order"? Because I don't see -- 11:55

19 ah. Let me refresh my -- let me refresh my -- 11:56

20 BY MR. MAO: 11:56

21 Q. Oh, I am sorry. That is probably my fault. 11:56

22 A. I got Exhibit 5. No, no, no. What I did is 11:56

23 I haven't refreshed my browser. 11:56

24 Now I see Exhibit 5. 11:56

25 Q. Let me just make sure I have the right 11:56

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1 Exhibit 5. Now you're making me a little nervous. 11:56

2 Oh, yeah. Yeah. 11:56

3 So Exhibit 5 should be a second supplemental 11:56

4 declaration of Martin Sramek in response to a 11:56

5 May 20th, 2022 order. 11:56

6 A. Yes. I see that. 11:56

7 So you're asking me if I have seen it? I'm 11:56

8 sorry. Please ask your question. 11:56

9 Q. Yeah. Have you seen this document before? 11:56

10 A. Can I please scroll through the document? 11:56

11 So I can tell you I don't think I have seen 11:58

12 this before, but clearly it's very related to the one 11:58

13 we were discussing before. 11:58

14 Do you have a question? 11:58

15 Q. Yeah. So looking at Exhibit -- like 11:58

16 paragraph 7 there, you see that? 11:58

17 A. Yes. 11:58

18 What is the date of this, just out of 11:58

19 curiosity? 11:58

20 Q. August 18th. 11:58

21 A. Ah, okay. August 18th, 2022. Okay. 11:58

22 So you said paragraph 7. 11:58

23 Yes. Let me read -- do you want me to -- 11:59

24 let me read paragraph 7. 11:59

25 Q. Please. 11:59



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1 question is also no. 12:01

2 I have not even asked Google to give me all 12:01

3 the logs about any field that may be related to 12:01

4 incognito; right? 12:01

5 No. My answer is no. 12:01

6 MR. MAO: Okay. Why don't we take a break 12:01

7 here as well. It's lunchtime here. 12:01

8 MR. ANSORGE: Okay. I'm fine with going off 12:01

9 the record. That works for us. 12:01

10 MR. MAO: Is that all right? 12:01

11 Can I get a -- sorry. Let's go off the 12:01

12 record first. I apologize. 12:01

13 THE VIDEOGRAPHER: Going off the record. 12:01

14 The time is 12:01 p.m. 12:01

15 (Break taken in proceedings.) 12:01

16 THE VIDEOGRAPHER: Back on the record. The 12:20

17 time is 12:20 p.m. 12:20

18 MR. MAO: Sorry, Professor. Before we -- 12:20

19 sorry. Just -- can we pause for a moment? There's 12:20

20 some noise. I don't know if you hear it. 12:20

21 THE COURT REPORTER: It looks like 12:20

22 Mr. Wright is not muted. 12:20

23 THE VIDEOGRAPHER: Mr. Wright, can you mute, 12:20

24 please? 12:20

25 MR. MAO: Can we go off the record? Let me 12:20

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1 call him. 12:20

2 THE VIDEOGRAPHER: Going off the record. 12:20

3 The time is 12:21 p.m. 12:20

4 (Pause in proceedings.) 12:21

5 THE VIDEOGRAPHER: Back on the record. The 12:21

6 time is 12:21 p.m. 12:21

7 BY MR. MAO: 12:21

8 Q. Good afternoon, Professor. We're still back 12:21

9 on the record. 12:21

10 If you don't mind still staying on 12:21

11 Exhibit No. 5, please. I'm still looking at that 12:21

12 paragraph 7. 12:21

13 A. Let me find Exhibit No. 5. 12:21

14 Yes, I am there. 12:22

15 Q. Do you agree with Mr. Sramek, at least in 12:22

16 your expertise, in your experience, that to find all 12:22

17 of the data sources that uses all incognito detection 12:22

18 bits inside Google would take months? 12:22

19 MR. ANSORGE: Objection. Mischaracterizes 12:22

20 Exhibit 5. 12:22

21 THE WITNESS: I'm reading paragraph 7 again. 12:22

22 I'm not sure I can have an opinion about 12:22

23 this because even though I do have an understanding of 12:23

24 Google's system, a good one, to form opinions on the 12:23

25 topics I have in my report, since I never got access 12:23

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1 to the Google system myself, I don't know how 12:23  
2 streamlined it is or it is not, when it comes to 12:23  
3 essentially doing what is described here. 12:23

4 And in particular the Court ordered this 12:23  
5 person -- I'm sorry. I don't remember his name -- to 12:23  
6 attest that there are no other data sources at Google 12:23  
7 in which any field is used by anything to inferring 12:23  
8 incognito browser state in any form. 12:23

9 So without knowing more, I cannot make a 12:23  
10 useful guess about how long it would take. 12:23

11 BY MR. MAO:

12 Q. So the fact that Google can't locate all of 12:24  
13 the incognito traffic and data in its architecture, 12:24  
14 even after two years of litigation, is not a surprise 12:24  
15 to you in your experience and expertise? 12:24

16 MR. ANSORGE: Objection. Mischaracterizes 12:24  
17 prior testimony. Vague and argumentative. 12:24

18 THE WITNESS: I did not say this. Because 12:24  
19 the system is very complex, Mr. Mao, it is important 12:24  
20 to be very careful with the words. 12:24

21 So paragraph 7 says "data sources at 12:24  
22 Google" -- "any other data sources at Google in which 12:24  
23 any field is used by any team to infer incognito 12:24  
24 browser state in any form." 12:25

25 And I said that I cannot make an informed 12:25

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1 opinion on how many months or weeks or whatnot might 12:25  
2 be required to do so in a hundred percent precise 12:25  
3 manner that this case would require. 12:25

4 You said something else. You used different 12:25  
5 words. 12:25

6 BY MR. MAO: 12:25

7 Q. Let me help rephrase this a little bit. 12:25

8 Go back and look at paragraph 2 on this. 12:25

9 Okay? 12:25

10 Because you might need the prompt -- the 12:25  
11 prompt what the response was for. That might help. 12:25

12 A. Yeah. Okay. 12:25

13 Q. You recall you saw this in Exhibit 4? 12:25

14 A. Yes. 12:25

15 Q. It's the same Martin Sramek, is my 12:25  
16 representation. 12:25

17 A. Yes, yes, yes. I recall that, yes. 12:25

18 Q. Okay. So my question to you is does this 12:25  
19 surprise you that basically two months later and over 12:25  
20 two years into the litigation, by the way, that Google 12:26  
21 still cannot identify all of the incognito data in its 12:26  
22 systems? 12:26

23 MR. ANSORGE: Same objection. 12:26

24 THE WITNESS: Paragraph 2 says that "Google 12:26  
25 must provide plaintiffs with their representation in 12:26

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1 writing that other than the logs identified, no other 12:26  
2 such logs exist." 12:26  
3 So I guess this paragraph says make sure 12:26  
4 there are no other logs. And based on the exhibits 12:26  
5 that you showed me so far, apparently there were some 12:26  
6 other logs; correct? 12:26  
7 BY MR. MAO: 12:26  
8 Q. There were. 12:26  
9 And so you see he identifies three bits but 12:26  
10 he's saying that there may be other bits and would 12:26  
11 take months for it to investigate. 12:27  
12 And my question to you is: Is that 12:27  
13 surprising to you? 12:27  
14 MR. ANSORGE: Objection. Mischaracterizes 12:27  
15 Exhibit 5. 12:27  
16 THE WITNESS: In order to be able to give 12:27  
17 you an accurate answer, can you tell me exactly what 12:27  
18 you are asking me whether it surprises me or not? 12:27  
19 BY MR. MAO: 12:27  
20 Q. That after two years of litigation, Google 12:27  
21 still cannot figure out all of the bits that identify 12:27  
22 incognito and where they sit within the architecture? 12:27  
23 A. My reading of this -- I'm not answering yet, 12:27  
24 but I'm just pointing out to the fact that my reading 12:27  
25 of this is not that Google cannot identify all places 12:27

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1 where related to incognito info may be. It says it 12:27  
2 will take multiple months, something like that. It 12:27  
3 doesn't say they cannot do it; right? 12:28

4 Q. So if you were to go about locating all of 12:28  
5 the logs that contain incognito bits, how would you go 12:28  
6 about doing that, Professor, as an expert in this 12:28  
7 field? 12:28

8 MR. ANSORGE: Objection. Incomplete 12:28  
9 hypothetical. Form, and compound. 12:28

10 THE WITNESS: I'm not sure I can answer that 12:28  
11 question properly for a system that I have no access 12:28  
12 to. And that I would assume it's -- you know, it 12:28  
13 started getting built many, many years ago, early 12:28  
14 2000s. You know, a lot of things are patched on top 12:28  
15 of it while it is changing. 12:29

16 So if I don't have access to it, maybe you 12:29  
17 could ask some architect from Google. But I don't 12:29  
18 think I can reasonably answer this for this system, 12:29  
19 given the level of access that I have to it. 12:29

20 BY MR. MAO: 12:29

21 Q. What would you need to access in order to 12:29  
22 ascertain? 12:29

23 A. I'm sorry. Can you repeat? 12:29

24 Q. What would you need to access in order to 12:29  
25 ascertain? 12:29

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1 MR. ANSORGE: Objection. Form. 12:29

2 THE WITNESS: Could you please rephrase? 12:29

3 What do I need to access in order to? 12:29

4 BY MR. MAO: 12:29

5 Q. Ascertain. You said that you could not 12:29

6 access right now. 12:29

7 And I'm saying, well, how would you do that? 12:29

8 What would you need to do, Professor? 12:29

9 A. In the absence of having -- since I have not 12:29

10 used the system, I don't have access to the system. I 12:30

11 don't have a log-in. I don't have the credentials 12:30

12 that very few people I would guess from Google have to 12:30

13 access all the logs everywhere. I can't really make a 12:30

14 guess that would be of value. I can talk in general 12:30

15 about such systems, but I don't see how this would be 12:30

16 relevant to this particular pretty large, probably 12:30

17 huge, I guess system. 12:30

18 Q. So would I be correct to say that you 12:30

19 yourself also do not know where all the incognito data 12:30

20 sits within Google's architecture? 12:30

21 A. Within Google's architecture, I do know, 12:30

22 based on the architectural documents that I have 12:31

23 reviewed. And I can describe at the architecture 12:31

24 level where they would sit. 12:31

25 But architecture is one thing. And then 12:31

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1 when you have a live system that is run for multiple 12:31  
2 years and a lot of logs are being created and they are 12:31  
3 in multiple places, that is another thing. 12:31

4 I wouldn't be able to tell you because I 12:31  
5 don't know obviously, you know. All the logs that -- 12:31  
6 in Google may have incognito bits, obviously. 12:31

7 You see, I'm drawing a difference between 12:31  
8 architecture, because this is what you said, and what 12:32  
9 are all these logs and what are all these logs and 12:32  
10 what's the names, et cetera. 12:32

11 Q. Okay. So you don't know where -- do you 12:32  
12 know what all the logs are that contain incognito 12:32  
13 bits? 12:32

14 MR. ANSORGE: Objection. Vague. 12:32

15 BY MR. MAO: 12:32

16 Q. All these logs -- sorry. 12:32

17 MR. ANSORGE: Asked and answered. 12:32

18 MR. MAO: Sorry. You done with your 12:32  
19 objections? 12:32

20 Joey, I don't know if you can see, your 12:32  
21 mouth is actually below the line so I actually can't 12:32  
22 see you when you're objecting. Sorry. That's why I 12:32  
23 interrupted because you dipped below your line. And 12:32  
24 then I was like, oh, so -- so that's -- again, the 12:32  
25 body queues that we're missing from the live depo. 12:32

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1 BY MR. MAO: 12:32

2 Q. So, Professor, let me re-ask. 12:32

3 Do you know what Google is doing with all of 12:32

4 the data that has incognito bits? 12:33

5 MR. ANSORGE: Objection. Vague. Form. And 12:33

6 calls for speculation. 12:33

7 THE WITNESS: If you could give me an 12:33

8 example, like a scenario, that could be very helpful 12:33

9 for me to answer accurately. For example, you asked 12:33

10 me if I know what Google does with all the data that 12:33

11 also having incognito? 12:33

12 Which data? Which scenario? At which log? 12:33

13 And I do have -- I'm going to say it again, 12:33

14 I do have a number of scenarios myself that I describe 12:33

15 in my report. But you can ask me about others too, 12:33

16 other scenarios. 12:33

17 But so general, I don't really, you know -- 12:33

18 so forgive me, but you need to understand the 12:33

19 following: For a technical expert, you understand, 12:33

20 right, it has to be more specific. 12:34

21 BY MR. MAO:

22 Q. Yeah. And you'd be surprised, Professor, 12:34

23 but for a lawyer, you also have to be more specific. 12:34

24 And that's why I'm trying to ask for your help because 12:34

25 I'm hoping maybe the technical person could help me 12:34

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1 understand. 12:34

2 Because if you look at paragraph 7, I 12:34

3 actually don't know what other bits may exist out 12:34

4 there; right? 12:34

5 So what I'm asking you is: First, do you 12:34

6 know what these other bits are? And if not, how do I 12:34

7 go about finding them? 12:34

8 MR. ANSORGE: Yeah. Objection. Vague. 12:34

9 Asked and answered. Form. Calls for speculation. 12:34

10 Compound. And foundation as well. 12:34

11 BY MR. MAO: 12:34

12 Q. Again, no, Professor. This was filed last 12:34

13 night so I don't have any more information than this, 12:34

14 and that's why I'm asking you those two questions; 12:34

15 right? 12:34

16 Do you know what else he's talking about and 12:34

17 how do I go about finding those? 12:35

18 MR. ANSORGE: Counsel, he's already told you 12:35

19 he wasn't involved with this investigation, and... 12:35

20 THE WITNESS: I don't know. 12:35

21 BY MR. MAO: 12:35

22 Q. So you don't know what these other bits are 12:35

23 and you wouldn't know how to go find them? 12:35

24 MR. ANSORGE: Yeah. Objection. 12:35

25 Mischaracterizes Exhibit 5. Compound. And asked and 12:35

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1 answered many times over now, Mr. Mao. 12:35

2 THE WITNESS: Which bits, again, are you 12:35

3 talking about? I'm reading paragraph 7. "There are 12:35

4 no other data sources at Google in which any field is 12:35

5 used by any team to infer incognito browser state in 12:35

6 any form." 12:35

7 I would not -- no, I do not know what 12:35

8 specifically he might be referring to with this 12:35

9 sentence. 12:35

10 BY MR. MAO: 12:35

11 Q. So you, as Google's expert, you also don't 12:35

12 know. 12:36

13 Isn't that correct? 12:36

14 MR. ANSORGE: Objection. Form. Asked and 12:36

15 answered. 12:36

16 THE WITNESS: I don't know if he's taking 12:36

17 the sentence from the Court order. 12:36

18 So it says "other data sources at Google," 12:36

19 data sources. A lot of things could be in which any 12:36

20 field, any field, anything that dates anywhere, in any 12:36

21 data source, is used by anything to infer incognito 12:36

22 browser state in any form. 12:36

23 If this is what the Court ordered -- or at 12:36

24 least this is his understanding of what this -- of 12:37

25 what the Court ordered, this is a very general type of 12:37

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1 search. 12:37

2 So I cannot go into some specific bits. I 12:37

3 could not say these are all the bits that they pop up 12:37

4 in my mind, especially given that I am not the 12:37

5 architect of the system; right? Or an architect 12:37

6 within Google that for years has been working with 12:37

7 this system to, you know... 12:37

8 BY MR. MAO:

9 Q. Did you ask for access to Google's systems? 12:37

10 MR. ANSORGE: Objection. Asked and answered 12:37

11 at least three or four times now, Mr. Mao. 12:37

12 MR. MAO: No. He testified that he didn't 12:37

13 have access to the systems. Now I'm asking him if he 12:37

14 asked for access to the systems. 12:37

15 Go read the transcript, Mr. Ansorge. 12:37

16 THE WITNESS: No, I did not ask. 12:37

17 BY MR. MAO: 12:38

18 Q. Why did you think it was not necessary to 12:38

19 ask? 12:38

20 A. Because the opinions that I have reached 12:38

21 were fully supported already by the source documents 12:38

22 that I have listed. 12:38

23 And I'm going to say it again, I'll be happy 12:38

24 to go through the opinions and the details of the 12:38

25 opinions and walk you through about why I'm saying 12:38

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1 that they are fully supported. 12:38

2 I didn't think that I need to have full 12:38

3 access in order to do a good job in forming the 13 12:39

4 opinions that I have formed. 12:39

5 Q. Similar question: Why did you not ask for 12:39

6 access to data sources outside of what was listed in 12:39

7 your expert report? 12:39

8 A. I believe the answer is also very similar. 12:39

9 It's the same answer. I was confident about the -- I 12:39

10 am confident about the validity, the merit of the 12:39

11 opinions I am listing in my report and analyzing. 12:39

12 Based on all these sources that I have 12:39

13 listed -- and for the record, there are a lot of 12:40

14 sources. I have to go through many, many, many 12:40

15 documents, as you can see. So it's not that I didn't 12:40

16 go through a lot of documents. 12:40

17 Q. And the additional information you saw from 12:40

18 the two Martin Sramek declarations did not change your 12:40

19 opinion as to whether or not you need to access 12:40

20 additional data sources. 12:40

21 Isn't that correct? 12:40

22 A. It is correct. I do not think that I need 12:40

23 to see additional. 12:40

24 Q. And those additional declarations didn't 12:40

25 cause you to change your opinion that you did not need 12:40

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1 access to Google's systems. 12:41

2 Is that correct? 12:41

3 A. It is correct. For the reason I described 12:41

4 already, it's more logs. 12:41

5 Q. Have you ever been in a situation where 12:41

6 software works differently than what is described in 12:41

7 the documentation? 12:41

8 MR. ANSORGE: Objection. Vague. Ambiguous. 12:41

9 Incomplete hypothetical. Calls for speculation. 12:41

10 THE WITNESS: I can't recall a situation off 12:41

11 the top of my head. But if you do have something in 12:41

12 mind, meaning if you have some -- some example, 12:41

13 some -- preferably to keep this tight, related to the 12:41

14 data at issue and the case at issue where software is 12:42

15 not doing what the document that is describing the 12:42

16 software it should be doing is doing, should I repeat 12:42

17 this, where the software is not doing what the 12:42

18 document says that it should be doing, I will be more 12:42

19 than happy to go through it. 12:42

20 BY MR. MAO:

21 Q. Okay. So still at Mr. Sramek's declaration, 12:42

22 paragraph 7, have you seen any documentation on these 12:42

23 additional incognito bits that he's referring to that 12:42

24 he has not yet had time to go find? 12:42

25 MR. ANSORGE: Objection. Vague. 12:42

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1 Mischaracterizes Exhibit 5. 12:42

2 THE WITNESS: So he's not referring to 12:43

3 additional incognito bits. Again, I'm trying to be 12:43

4 precise, especially with technical stuff. He is 12:43

5 saying something different. He said "no other data 12:43

6 sources in which any field is used by anything to 12:43

7 infer incognito browser state." 12:43

8 These are not -- he's not talking about any 12:43

9 incognito bits here. 12:43

10 And perhaps I could bring to the discussion 12:43

11 now the following piece of information -- it is in my 12:43

12 report, too -- that this may be a incognito bit for 12:43

13 which I expressed an opinion. And as you can see from 12:43

14 my report -- I'm not going to go in the report 12:43

15 paragraph now. You didn't ask for it. I'm just 12:43

16 trying to help here and say something. 12:43

17 It's basically based in the absence of the 12:43

18 X-Client-Data header. So keep this in mind, because 12:43

19 this may help understand better, I guess what he's 12:43

20 saying here. Because he says, "There are no other 12:44

21 data sources in which any field is used to infer 12:44

22 incognito browser state." 12:44

23 So the field that is used to infer incognito 12:44

24 browser state cited both by Mr. Hochman and myself is 12:44

25 the X-Client-Data header. So you see what I mean, 12:44

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1 in the case of inferring incognito when it comes to 12:45  
2 the maybeChromeincognito bit. That's all I'm saying. 12:46  
3 BY MR. MAO: 12:46  
4 Q. Right. 12:46  
5 So have you asked for a list of all data 12:46  
6 fields in which Google uses in order to infer 12:46  
7 incognito traffic? 12:46  
8 MR. ANSORGE: Objection. Asked and 12:46  
9 answered. 12:46  
10 THE WITNESS: I have not because my opinion 12:46  
11 after reviewing this hundreds of documents is that the 12:46  
12 field that could be uses to infer incognito browser 12:46  
13 state mode is the absence of X-Client-Data header, as 12:46  
14 I described in my report and also as Mr. Hochman 12:46  
15 described in his report. Meaning both experts here 12:46  
16 agree on this topic, meaning Mr. Hochman as well says, 12:46  
17 when he discusses the maybeChromeincognito bit, that 12:46  
18 is set in the absence of the X-Client-Data header, 12:47  
19 so... 12:47  
20 BY MR. MAO:  
21 Q. So have you asked for a list of all signals 12:47  
22 upon which Google would use to infer incognito usage? 12:47  
23 MR. ANSORGE: Objection. Form. And asked 12:47  
24 and answered. 12:47  
25 THE WITNESS: I have -- let me first clarify 12:47

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1       that. I don't know what you mean by a signal. You 12:47  
2       know, different words have different -- they can have 12:47  
3       meaning on their own. 12:47

4               But regardless, I have not asked Google to 12:47  
5       provide me with a list of fields, as I said. I have 12:48  
6       not. They might be used to infer incognito browser. 12:48  
7       Because, again, as I said... 12:48

8       BY MR. MAO:

9               Q. As you said, sir? 12:48

10              A. Yeah. As I said from the -- or you can 12:48  
11       actually read my -- I'm going to just repeat myself. 12:48  
12       You could just read -- I don't mind repeating it 12:48  
13       frankly because I'm going to say the exact same thing. 12:48

14              The absence of the X-Client-Data header is 12:48  
15       what Google uses to set or not set the so-called 12:48  
16       maybeChromeincognito bit, as stated in both 12:48  
17       Mr. Hochman's report and my report. And after 12:48  
18       reviewing all the documents, any presence of this 12:48  
19       knowledge, I did not believe that there is a need to 12:48  
20       ask Google for any other lists about this. 12:49

21              Q. And it is your opinion that Google does not 12:49  
22       use any other data fields to infer incognito usage? 12:49

23              Is that correct? 12:49

24              MR. ANSORGE: Objection. Mischaracterizes 12:49  
25       prior testimony. 12:49

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1 THE WITNESS: Can you repeat the question 12:49  
2 one more time? 12:49  
3 MR. MAO: Yeah. 12:49  
4 Ms. Court Reporter, Katy, can you please 12:49  
5 read that back? Thank you. 12:49  
6 (Court reporter reads back.) 12:49  
7 THE WITNESS: To the best of my knowledge, 12:50  
8 yes. 12:50  
9 BY MR. MAO: 12:50  
10 Q. Okay. Now back to your opinion No. 1, okay, 12:50  
11 which is that "users cannot be readily identified for 12:50  
12 the data at issue." 12:50  
13 Have you asked from Google for a full list 12:50  
14 of all the ways in which Google uses to reidentify 12:50  
15 users? 12:50  
16 MR. ANSORGE: Objection. Vague. Compound. 12:50  
17 Mischaracterizes Exhibit 1. 12:50  
18 THE WITNESS: It would help a lot if we are 12:50  
19 a bit more specific, Mr. Mao. 12:50  
20 For example, as a first point, as a first 12:50  
21 matter, we are talking about the data at issue in this 12:50  
22 case; correct? So we are only interested in the 12:51  
23 alleged identification from the data at issue, which 12:51  
24 is when a user is in private browsing mode, it's not 12:51  
25 logged into a Google account and it is visiting a 12:51

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1 non-Google website, pretty much pasted -- copy pasted 12:51  
2 from the complaint. 12:51  
3 So if you want to restate the question that 12:51  
4 it's a little bit more specific, it would be immensely 12:51  
5 helpful. 12:51  
6 BY MR. MAO:  
7 Q. Sure. 12:51  
8 But you previously testified that you didn't 12:51  
9 ask for a full list of all the relevant data logs in 12:51  
10 this case. 12:51  
11 So how would you even know what data is 12:51  
12 relevant and at issue in this case, sir? 12:51  
13 MR. ANSORGE: Objection. Vague. 12:51  
14 Mischaracterizes prior testimony. And -- 12:51  
15 BY MR. MAO: 12:52  
16 Q. This is you clarifying me; right? So I'm 12:52  
17 asking you: 12:52  
18 How did you come to that determination of 12:52  
19 what was relevant and what was not? 12:52  
20 A. The data at issue, Mr. Mao, are very clearly 12:52  
21 described in the Complaint and in my report. And I 12:52  
22 can go through them if you wish now. 12:52  
23 Q. Right. 12:52  
24 But you have specific sources; right? You 12:52  
25 confine the analysis to certain sources. And I'm 12:52

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1 asking you how did you make a determination sources -- 12:52  
2 of the sources, that those were the relevant sources? 12:52  
3 That's my question. 12:52  
4 That was what we were arguing about, are we 12:52  
5 not? That's what I'm trying to understand, Professor. 12:52  
6 MR. ANSORGE: Objection. Form. Vague, and 12:52  
7 compound. 12:52  
8 THE WITNESS: I ask for the documentation 12:52  
9 related to topics that they are described in the 12:53  
10 Complaint and in Mr. Hochman's report because recall, 12:53  
11 this is a rebuttal to Mr. Hochman's report. And I 12:53  
12 received documentation. And then I may ask for more 12:53  
13 documentation about these topics, and I receive more 12:53  
14 documentation. 12:53  
15 At some point I determine that I have 12:53  
16 received enough documentation. And together with all 12:53  
17 the other sources that I have identified directly 12:53  
18 myself, directly myself meaning they are public 12:53  
19 documents, allow me to reach an opinion, and I can 12:53  
20 stand hundred percent behind it based on what I have 12:53  
21 reviewed up to that point. 12:54  
22 So that's how I go about it. 12:54  
23 (Plaintiffs' Exhibit 6 was 12:54  
24 marked for identification.) 12:54  
25 ///

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1 BY MR. MAO: 12:54

2 Q. Okay. Let me go into Exhibit -- this is 12:54

3 No. 6. It should be a document entitled "Incognito 12:54

4 Events Labeling." 12:54

5 A. Let me figure this out. Exhibit No. 6. Let 12:54

6 me refresh my -- 12:54

7 MR. ANSORGE: Is it named Exhibit No. 6, 12:54

8 Counsel? 12:54

9 MR. MAO: Oh. Sorry. I think I forgot to 12:54

10 add the stamp. Give me a sec. 12:54

11 Okay. Probably fixed it. 12:54

12 THE WITNESS: I opened it up. Give me a 12:55

13 second to download. 12:55

14 MR. MAO: Take your time, Professor. 12:55

15 Because I'm going to ask you if you were aware of this 12:55

16 other incognito signal. 12:55

17 THE WITNESS: Okay. So this is -- okay. 12:55

18 Yeah. I'm trying to figure out if I've seen 12:55

19 this before, and I don't think I have. It's not 12:56

20 listed on my report for sure. So let me just go 12:56

21 through it. 12:56

22 How many pages? 12:56

23 MR. MAO: Please. 12:56

24 BY MR. MAO: 12:56

25 Q. You know my next question is going to be -- 12:56

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1	A.	I don't know.	12:56
2	Q.	Yes, you do.	12:56
3	A.	So should I --	12:56
4	Q.	Yeah. Read it.	12:56
5	A.	I'm going to go through the whole thing.	12:56
6	Q.	I've got time. You've got time.	12:56
7	A.	Sounds good.	12:56
8		I have reached page I guess 7798.	12:56
9		Do you want me to continue reading	12:59
10		everything?	12:59
11	Q.	Yeah. Please.	12:59
12	A.	I'm searching the document, if you don't	12:59
13		mind for some stuff, so if you see me typing, that's	12:59
14		the only reason why.	12:59
15		And I will also, because I forgot to do so	01:00
16		download, the Exhibit 5. I was looking at it directly	01:00
17		so let me do that too.	01:00
18		Okay. I mean, I -- go for it. I don't want	01:04
19		to use, you know, too much -- I've got an idea about	01:04
20		this document. If you ask me a question so it's --	01:04
21		because now I know what's going on with the document.	01:04
22		So let me go to this section of the document, or maybe	01:04
23		I can answer it immediately. Go for it.	01:05
24	Q.	Sure.	01:05
25		Professor Psounis, have you ever considered	01:05

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1       this document before? It's not on your list. 01:05

2           A. It's not on my list, no. 01:05

3           Q. Do you have a different opinion now 01:05

4       regarding whether or not there are other incognito 01:05

5       signals other than the X-Client-Data header? 01:05

6           A. No. Because this document is not related to 01:05

7       the data at issue. Throughout the document, it's 01:05

8       talking about Zwieback cookies. It also mentions 01:05

9       GAIA. Other data at issue are for people, No. 1, 01:05

10      where they are signed out, so there's no GAIA. And 01:05

11      No. 2, they are not visiting a Google site and hence 01:05

12      they get a Biscotti. 01:05

13           Q. But if Zwieback signals are in the case, 01:05

14      then that is relevant to the case. 01:05

15           Wouldn't you agree? 01:05

16           MR. ANSORGE: Objection. Mischaracterizes 01:05

17      prior testimony. Calls for speculation. Calls for 01:05

18      legal conclusion. 01:05

19      BY MR. MAO: 01:05

20           Q. I would challenge you, sir, to look at the 01:06

21      log sources again because Zwieback is in the case. 01:06

22           A. To look at where? 01:06

23           Q. That's a good question for you, sir. You're 01:06

24      this the one that's supposed to know all the relevant 01:06

25      sources. 01:06

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1 MR. ANSORGE: Objection. Argumentative. 01:06

2 THE WITNESS: Okay. Let me repeat again, 01:06

3 my -- what is your answer -- what is your question? 01:06

4 BY MR. MAO: 01:06

5 Q. My question is: If this is an incognito 01:06

6 signal for Zwiebacks, and Zwiebacks are in the case, 01:06

7 wouldn't you agree that this is a different signal 01:06

8 than the X-Client-Data header? 01:06

9 MR. ANSORGE: Objection. Mischaracterizes 01:06

10 Exhibit 6. 01:06

11 THE WITNESS: I'm going to break it into 01:06

12 pieces. Let's first go with the first piece. Because 01:06

13 I'm going to through my own report now, if you don't 01:06

14 mind. 01:06

15 So let me first repeat what I said about the 01:07

16 Zwieback cookie. This case is about users that they 01:07

17 are logged out and visit a non-Google website. In 01:08

18 this case, they will get a Biscotti ID. 01:08

19 I do include in my report why there are 01:08

20 places where I also refer to the Zwieback ID which is 01:08

21 specific to Google websites because I'm rebutting 01:08

22 Mr. Hochman's report, and he does refer to it a number 01:08

23 of times. 01:08

24 But the fact of the matter is that Exhibit 6 01:08

25 in this whole discussion is not about what happens 01:08

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1 when you visit a non-Google website. It's about when 01:08  
2 you visit a Google website. 01:08  
3 BY MR. MAO:  
4 Q. Let's clarify this very fundamental dispute 01:08  
5 you and I seem to be having. 01:08  
6 Are you saying that in your experience, your 01:08  
7 expert opinion, is that you can't have a Zwieback 01:08  
8 while a user is on a third party website? 01:09  
9 A. No. I did not -- I'm going to -- I did not 01:09  
10 say that because a user may first go into a non-Google 01:09  
11 website and then go to a Google website, and then both 01:09  
12 of those things are going to end up in their jar. 01:09  
13 Q. Right. 01:09  
14 So now let me ask you a question again: 01:09  
15 Would a Zwieback with this signal, okay, would that be 01:09  
16 a different signal than the X-Client-Data header for 01:09  
17 the purposes of this case? At least in some 01:09  
18 situations? 01:09  
19 MR. ANSORGE: Objection. Vague and 01:09  
20 ambiguous. Mischaracterizes Exhibit 6. 01:09  
21 THE WITNESS: So there is proposal design 01:09  
22 ideas discussed in Exhibit 6. [REDACTED] 01:09  
23 [REDACTED] 01:10  
24 And is this the -- so why don't you tell me 01:10  
25 which particular field header, whatever, you are 01:10

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1 referring to as a signal here? 01:10

2 BY MR. MAO: 01:10

3 Q. My question to you, sir, because it's my 01:10

4 deposition, is actually how did you not know that 01:10

5 there was an additional signal? 01:10

6 A. Which of the -- 01:10

7 MR. ANSORGE: Objection. Argumentative. 01:10

8 Mischaracterizes Exhibit 6. And assuming facts not in 01:10

9 evidence, Mr. Mao. 01:10

10 THE WITNESS: So which -- 01:10

11 BY MR. MAO: 01:10

12 Q. Professor Psounis, can you answer the 01:10

13 question, please? 01:10

14 A. Which signal are you referring to? 01:10

15 Q. The one you just stated back to me. 01:10

16 A. Which one was that? I said a lot of things. 01:10

17 This is -- which signal, just to make 01:10

18 sure -- 01:10

19 Q. [REDACTED] 01:10

20 A. I'm sorry. Which one? 01:10

21 Q. [REDACTED] 01:11

22 A. Okay. So you are referring to this new 01:11

23 [REDACTED], which is -- oh, okay. 97. 01:11

24 So let me read a little bit about this 01:11

25 [REDACTED] to understand specifically what its 01:11



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1 nature is. Then -- 01:11

2 Q. You and I agree -- you and I agree that you 01:11

3 don't actually know what the signal is; right? 01:11

4 MR. ANSORGE: Why don't you let him 01:11

5 answer -- finish answering your questions. And he was 01:11

6 in the middle of speaking. 01:11

7 THE WITNESS: If I read a little bit more 01:11

8 now targeted in the area of Exhibit 6 that talks 01:11

9 explicitly about the [REDACTED], I'll do a search and 01:11

10 it's going to be relatively fast, I will be able to 01:11

11 get back to you about this. 01:12

12 MR. MAO: Okay. Go ahead. Please do that. 01:12

13 THE WITNESS: It happens. It's fine. It's 01:12

14 not accessible but it's okay. It will just take a 01:12

15 little bit longer. Apologies for that. I'm trying to 01:12

16 search for the string and it's not working. So I'll 01:12

17 just do it the old-fashioned way. 01:12

18 Okay. So now that I read the corresponding 01:16

19 parts of exactly how the logic works, I can answer 01:16

20 your question hopefully. 01:16

21 BY MR. MAO: 01:16

22 Q. Yeah. 01:16

23 My question is: Did you know about this 01:16

24 signal before you came to the deposition here today? 01:16

25 MR. ANSORGE: Objection. Mischaracterizes 01:16

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1 Exhibit 6 and assumes facts not in evidence. 01:16

2 THE WITNESS: I did not refer to this signal 01:17

3 in my report. 01:17

4 Whether I know or I don't know, I'm trying 01:17

5 to remember if I had discussions or if I was looking 01:17

6 at it in the past, and I wouldn't know for sure but 01:17

7 it's not in my report. 01:17

8 BY MR. MAO: 01:17

9 Q. And that you wouldn't know for sure because 01:17

10 you never asked for a list of all incognito signals. 01:17

11 Isn't that true? 01:17

12 A. No. I do not believe in the "because" part. 01:17

13 Q. Okay. Let's carry on with the torture. 01:17

14 I'll introduce you to another exhibit and 01:17

15 I'm going to ask you whether you know what this signal 01:17

16 is? 01:17

17 A. Sure. 01:17

18 (Plaintiffs' Exhibit 7 was 01:17

19 marked for identification.) 01:17

20 MR. ANSORGE: Objection. Argumentative. 01:17

21 BY MR. MAO:

22 Q. Exhibit No. 7.

23 A. Exhibit 7. Let me go through it. 01:18

24 I'm looking at it. 01:18

25 Q. Please, take your time. 01:18

1	A. I'm going to download it.	01:18
2	This is an email; correct? So I assume I'm	01:19
3	summarizing. Yes?	01:19
4	Q. Yes.	01:19
5	A. Okay. Perfect. So let me go through it.	01:19
6	It's a lot of conversation.	01:19
7	Do you want me to read the whole thing or --	01:20
8	Q. Yeah.	01:20
9	A. Is there a place in the conversation --	01:20
10	Q. Yeah. I'm going to ask you if you know what	01:20
11	this other incognito signal is.	01:20
12	A. Which one?	01:20
13	Q. The --	01:20
14	A. I don't know.	01:20
15	Q. Well, I mean, I think it's pretty	01:20
16	self-explanatory if you read it.	01:20
17	A. So what --	01:20
18	MR. ANSORGE: Objection. Vague, ambiguous,	01:20
19	and argumentative.	01:20
20	When you ask him questions and then he can	01:20
21	provide --	01:20
22	BY MR. MAO:	01:20
23	Q. GWS IDs and experiment IDs, do you know	01:20
24	whether or not those are used as incognito signals?	01:20
25	A. Which ID? I'm sorry?	01:20

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1 Q. The document refers to -- refers to them as 01:20  
2 GWS IDs and experiment IDs. 01:20  
3 MR. ANSORGE: Mr. Mao, why don't you refer 01:20  
4 him to the specific part of the document. 01:20  
5 MR. MAO: No. I am referring to the 01:20  
6 specific parts of the document. I'm telling him what 01:20  
7 the term is. It's throughout the document, all seven 01:20  
8 pages. 01:20  
9 BY MR. MAO:  
10 Q. Please take your time.  
11 I'm going to ask you whether or not this is 01:20  
12 another X-Client -- I'm sorry. Whether it's another 01:21  
13 incognito signal that you're aware of before you came 01:21  
14 in here today. 01:21  
15 A. Okay. I can read the whole thing. I wasn't 01:21  
16 trying to -- 01:21  
17 Q. No, no, no. It was me and counsel arguing. 01:21  
18 A. Okay. 01:21  
19 MR. ANSORGE: Yeah. 01:21  
20 And, Mr. Mao, you stated earlier you're 01:21  
21 considered about time so we're trying to maybe speed 01:21  
22 things up by directing him to a specific passage. If 01:21  
23 you're putting full documents before him, expecting 01:21  
24 him to read the full aspect, obviously it's going to 01:21  
25 take a long time. 01:21

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1 MR. MAO: We're almost done at the point in 01:21  
2 which he wants to take a break anyways for lunch. 01:21  
3 1:30. So we've got nine minutes here on this. Plenty 01:21  
4 of time. 01:21

5 THE WITNESS: So I read this document and 01:24  
6 essentially they are describing an experiment. 01:24  
7 Experiment IDs is a completely different base. I can 01:24  
8 talk to you more about this. 01:24

9 As companies are running for short periods 01:24  
10 of time specific experiments to improve their system, 01:24  
11 my understanding by just -- again, I've never seen 01:25  
12 this. I haven't done a careful analysis. But I can 01:25  
13 tell you my understanding in this document is that 01:25  
14 they are discussing about an experiment. I don't know 01:25  
15 if experiment actually took place. 01:25

16 If it did, I don't know if you have evidence 01:25  
17 to show me that indeed this experiment was actually 01:25  
18 done. I don't know how long it lasted. I don't see 01:25  
19 frankly why it's related to the case. 01:25

20 So they run an experiment that -- actually 01:25  
21 may have run an experiment. And, again, if you have 01:25  
22 evidence that it did run, great. 01:25

23 BY MR. MAO:

24 Q. Yeah. I have evidence. The first line, it 01:25  
25 says "Currently, we don't send experiment IDs, thereby 01:25

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1 exposing to Google that the user is using incognito." 01:25

2 My first question is: What is that 01:25

3 additional signal there, "experiment IDs"? 01:25

4 A. I'm sorry, but this is not -- okay. Wait. 01:25

5 But this is not proof that the experiment took place. 01:25

6 This sentence doesn't say that the experiment took 01:26

7 place. 01:26

8 This is an e-mail message between various 01:26

9 employees about the possibility to run an experiment, 01:26

10 and they are debating what experiment ID -- this is 01:26

11 what's called experiment ID. They're inferring to 01:26

12 experiment IDs in general, whenever they want to run 01:26

13 an experiment. And the GWS ID is the one that they 01:26

14 were discussing that may be the ID to use for this 01:26

15 particular experiment. 01:26

16 I'm not trying to, you know, judge anything 01:26

17 here. But I'm just explaining to you what this is 01:26

18 about. 01:26

19 So I don't know if this experiment took 01:26

20 place. I don't know if it did take place, how long it 01:26

21 lasted. I don't know what is the purpose of this 01:26

22 experiment. 01:26

23 What I do know is that there is a lot of 01:26

24 discussion in this document about all these people 01:26

25 really worrying about, you know -- not worrying -- 01:26

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1 showing interest, if you wish, and for a good reason, 01:26

2 to not break things in the sense that there are 01:27

3 specific policies and rules that you cannot violate. 01:27

4 So I guess they would never get approval to 01:27

5 run the experiment if they were to violate these 01:27

6 policies. 01:27

7 And I can see the discussion, you know, that 01:27

8 they -- 01:27

9 But in any case, at the bottom line here is 01:27

10 I don't know if this experiment took place. If it 01:27

11 did, please let me know, if you know. 01:27

12 Q. Professor -- 01:27

13 A. Because I don't know for how long it lasted. 01:27

14 Q. Professor, do you know what the "experiment 01:27

15 IDs" are referring to here, first line? 01:27

16 A. Experiment IDs is in general, we are going 01:27

17 to run an experiment. We need to somehow indicate 01:27

18 that this is data related to experiment we are 01:27

19 running. It's a very general tab. 01:27

20 And GWS ID, which is the other term you told 01:27

21 me about, is the specific IDs that they have been 01:27

22 using in the past and they are considering to use them 01:27

23 for this experiment that they are referring to here. 01:27

24 Q. But do you know whether or not experiment 01:28

25 IDs are used for incognito mode? 01:28

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1           A.     During an experiment that may or may not           01:28  
2     have taken place, how -- why is this --           01:28  
3           Q.     It says "Currently." It doesn't show that           01:28  
4     it's currently in place. It says "Currently," sir.           01:28  
5           A.     Yeah. "Currently, we do not send experiment           01:28  
6     IDs." That's --           01:28  
7           Q.     Thereby exposing to Google that the user is           01:28  
8     in incognito.           01:28  
9                 That's not an additional signal?           01:28  
10           MR. ANSORGE: Yeah. Objection.           01:28  
11     Argumentative. Asked and answered. Mischaracterizes           01:28  
12     Exhibit 7.           01:28  
13     BY MR. MAO:           01:28  
14           Q.     Okay. Sir --           01:28  
15           A.     Go for --           01:28  
16           Q.     -- experiment IDs before you --           01:28  
17           THE COURT REPORTER: Hang on a second. I           01:28  
18     didn't --           01:28  
19           THE WITNESS: I'm going to stop and I'm           01:28  
20     going to only answer -- I want to help, so I don't           01:28  
21     want to be -- so go for it. Go for you question. I'm           01:28  
22     going to answer.           01:28  
23     BY MR. MAO:           01:28  
24           Q.     Yeah.           01:28  
25                 Did you know about experiment IDs as a way           01:28



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1 of exposing to Google that the user is in incognito 01:29  
2 before you came into this deposition today? 01:29

3 A. I am aware of the fact that Google, like 01:29  
4 pretty much all other software companies, run 01:29  
5 experiments with their system. In order to run 01:29  
6 experiments with their system, and in particular in 01:29  
7 the case of Google, given the type of system they 01:29  
8 have, they need to indicate somehow which parts of 01:29  
9 their system are now being used to run an experiment. 01:29  
10 This is what they mean here by "experiment IDs." 01:29

11 Q. Sir, you had no idea before you came into 01:29  
12 this room today that they were also -- they were also 01:29  
13 able to use this signal. 01:29

14 Isn't that correct? 01:29

15 MR. ANSORGE: Objection. Argumentative. 01:29  
16 Mischaracterizes Exhibit 7. 01:29

17 MR. MAO: He's avoiding my question. 01:29

18 THE WITNESS: No. This is not correct. It 01:29  
19 is actually wrong. Let me again explain to you what 01:29  
20 is going on here. 01:29

21 The experiment IDs here is not referring to 01:29  
22 a specific ID. It is referring to a group of 01:30  
23 potential IDs that engineers may use during an 01:30  
24 experiment for the purpose of the experiment. 01:30  
25 And what this particular experiment is 01:30

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1 about, as it is described in this message, is such 01:30  
2 that if they were to send the particular experiment ID 01:30  
3 that they are discussing about in the context of this 01:30  
4 experiment, they worry that they may expose to Google 01:30  
5 that the user is using incognito mode. 01:30

6 This is a discussion about, and they are 01:30  
7 going on and on about how should we do this? How 01:30  
8 should we set it up? 01:30

9 So my answer to you is -- yes. 01:30

10 My answer to you is -- my answer to you is I 01:30  
11 don't know if this is relevant because I don't know if 01:31  
12 this experiment took place, and I don't know for how 01:31  
13 long it lasted. And I don't even know if they 01:31  
14 actually end up using the GWS ID for this particular 01:31  
15 experiment they are talking about. That's what I'm 01:31  
16 saying. 01:31

17 BY MR. MAO:

18 Q. Do you know what these experiment IDs are? 01:31

19 MR. ANSORGE: Objection. Vague. 01:31  
20 Mischaracterizes Exhibit 7. 01:31

21 BY MR. MAO: 01:31

22 Q. Like what IDs are they talking about here? 01:31

23 A. When someone uses the phrase "experiment 01:31  
24 IDs," they are referring to IDs that engineers may use 01:31  
25 to be able to execute the experiment in the context of 01:31

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1 a large system that handles a lot of data. They are 01:31  
2 not referring to specific ID by the word -- by the 01:31  
3 words "experiment IDs." They say -- how should I put 01:31  
4 this? 01:31

5 Q. Can you give me an example -- 01:31

6 MR. ANSORGE: Mr. Mao, please stop 01:31  
7 interrupting the witness. Please. We've asked 01:32  
8 politely repeatedly. But now we're at the point where 01:32  
9 it's verging on harassment, sir. Please, let him 01:32  
10 answer your questions. 01:32

11 BY MR. MAO: 01:32

12 Q. I'm literally just going to ask you what IDs 01:32  
13 do you think this might be? Google IDs. Google IDs 01:32  
14 that you actually know. 01:32

15 A. Okay. I'm going to try again to explain 01:32  
16 this. Perhaps -- perhaps the lack of technical 01:32  
17 expertise from your part is causing this particular 01:32  
18 miscommunication. Let me try again. Maybe I'm doing 01:32  
19 a bad job, so... 01:32

20 In the context of a software company, every 01:32  
21 now and then they conduct experiments. When the 01:32  
22 company handles data, they don't want to run the 01:32  
23 experiments in the complete data flow, so they use 01:32  
24 experiment IDs, meaning IDs for the purpose of this 01:32  
25 experiment. 01:33

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1                   So all I'm saying is that the term                   01:33  
2                   "experiment IDs" is not referring to specific ID.                   01:33  
3                   That's all I am saying.                   01:33  
4                   Is this clear now, I hope?                   01:33  
5                   Whereas the GWS ID is a specific --                   01:33  
6           Q.       So what is -- what is a GWS ID, sir?                   01:33  
7           A.       I do not remember off the top of my head                   01:33  
8           what a GWS ID is. I read something about it in this                   01:33  
9           e-mail exchange, but I don't remember exactly what it                   01:33  
10           is.                   01:33  
11           Q.       I'm going to give you a hint. GWS ID is                   01:33  
12           absolutely quintessential to this case.                   01:33  
13                   Do you know what GWS ID is?                   01:33  
14                   You don't know? Not off the top of your                   01:33  
15           head?                   01:33  
16                   MR. ANSORGE: Objection. Argumentative.                   01:33  
17           And it's not a memory test, Mr. Mao. I mean, if you                   01:34  
18           have specific documents --                   01:34  
19                   MR. MAO: It is when he's your expert.                   01:34  
20                   MR. ANSORGE: No, no. It's not what the                   01:34  
21           complicated --                   01:34  
22                   MR. MAO: Yes, it is.                   01:34  
23                   MR. ANSORGE: And we are at way past when                   01:34  
24           you promised us a lunch break as well. So at some                   01:34  
25           point I think we're going to have a little bit of a                   01:34

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1 break, aren't we? 01:34

2 MR. MAO: We will. And if you talk to him 01:34

3 to try to coach him during the break, I will 01:34

4 absolutely get that out. 01:34

5 BY MR. MAO:

6 Q. So what is a GW ID, sir? GWS ID? 01:34

7 A. I don't remember off the top of my head. 01:34

8 Give me a second to go -- if you are -- why don't you 01:34

9 share -- why don't you share some additional documents 01:34

10 with me. Maybe a document that defines the GWS ID. 01:34

11 Maybe you could share Mr. Hochman's report that you 01:34

12 may be referring to the GWS ID. May or may not. I 01:34

13 don't know. I'm not accessing anything other than the 01:34

14 exhibits. 01:34

15 I did inspect my own report and I searched 01:34

16 for the string GWS and it's not showing up. 01:34

17 So it -- it is not a memory test. It's a 01:35

18 very, very large number of documents and there are 01:35

19 actually a lot of IDs and a lot of settings and 01:35

20 scenarios. So just, you know, if -- any data you show 01:35

21 me, I will be happy to -- any exhibits you provide to 01:35

22 me, I will be happy to go through them to recall what 01:35

23 a GWS ID is. 01:35

24 I already told you what is experimental IDs. 01:35

25 So we can do this before or after lunch. If 01:35

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1     you think it's going to take a long time, let's do it     01:35  
2     after lunch. But, you know, I --     01:35  
3             Q. How much time have you spent preparing for     01:35  
4     this case -- or working on this case? Sorry. How     01:35  
5     much time have you spent working on this case? Strike     01:35  
6     my prior question.     01:35  
7             A. Let me think. About 200 hours.     01:35  
8             Q. How many documents do you think you went     01:36  
9     through?     01:36  
10            A. Hundred. Provided by, you know, Google and     01:36  
11     others, plus a lot of other documents I have looked     01:36  
12     myself in public space.     01:36  
13            Q. Sitting here today, right now, without     01:36  
14     further assistance, you don't know what experiment IDs     01:36  
15     and you don't know what GWS IDs they are referring to,     01:36  
16     GWS IDs?     01:36  
17            A. First, I already told you what experiment     01:36  
18     IDs are.     01:36  
19                 Second, I said -- I did not say I do not     01:36  
20     know what GWS ID is. I said I do not recall exactly     01:36  
21     what GWS ID is, and I asked you to give me a document     01:37  
22     that says what GWS ID is.     01:37  
23                 I double-checked those on my report and I     01:37  
24     couldn't find mentioning the GWS ID in there.     01:37  
25                 You could also search Mr. Hochman's report     01:37

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1 and I can also check if he's referring. But I'm not 01:37  
2 saying he's not. And maybe this is going to help me, 01:37  
3 meaning just -- yeah. So that's exactly what -- where 01:37  
4 we are right now. 01:37

5 MR. MAO: Thank you, Professor. We will 01:37  
6 take our break. 01:37

7 THE WITNESS: Sounds good. 01:37

8 THE VIDEOGRAPHER: Going off the record. 01:37

9 The time is 1:37 p.m. 01:37

10 (Lunch break taken.) 01:37

11 THE VIDEOGRAPHER: Back on the record. The 02:20

12 time is 2:20 p.m. 02:20

13 BY MR. MAO: 02:20

14 Q. Professor, if you don't mind pulling up 02:20

15 Exhibit No. 1, which is -- should be your -- should be 02:20

16 your report. 02:20

17 A. I'm there. 02:20

18 Q. Okay. I'm moving on to opinion No. 2. 02:20

19 Hold on a sec here. This is what happens 02:20

20 when you have both, like you said, paper documents and 02:20

21 electronic documents. 02:21

22 You see your opinion No. 2 there. If you 02:21

23 have a chance to kind of like pull this up. 02:21

24 The industry guidelines on private browsing, 02:21

25 am I right that you are referring to the 02:21

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1 W3C Technical Architecture Group observations in that 02:21  
2 document? 02:21

3 A. I'm referring to all W3C indeed, and the 02:21  
4 Technical Architecture Group. Exact wording, I can 02:21  
5 cite, if it's important on my report. 02:21

6 Q. Got it. 02:21  
7 I introduced Exhibit No. 8. 02:21  
8 Can you take a look and tell me if those are 02:21  
9 the -- if those are the standards in which you were 02:21  
10 referring to? 02:21

11 (Plaintiffs' Exhibit 8 was 02:21  
12 marked for identification.) 02:21

13 THE WITNESS: I'm downloading it. That's 02:22  
14 why it takes a little bit longer. 02:22

15 BY MR. MAO:

16 Q. No worries. 02:22

17 A. Let me scan through the document to make 02:22  
18 sure it's the same one or I could just look at the way 02:22  
19 I have cited it. Either way is fine. Just give me a 02:23  
20 few minutes. 02:23

21 This is definitely a document from W3C tag 02:24  
22 on private browsing modes. Sure. 02:24

23 Is it the one I have cited? Give me another 02:24  
24 second -- 02:24

25 Q. Mm-hm. 02:24



1	A. -- to see the specific citation I have.	02:24
2	Yes. Private browsing mode. I believe this	02:24
3	is the one. I believe this is the one. I will have	02:25
4	to click, and I am not allowed to, correct, to	02:25
5	double-click?	02:25
6	Q. No. You can -- you can click it, just to	02:25
7	make sure.	02:25
8	MR. ANSORGE: Click what, Counsel?	02:25
9	MR. MAO: Oh, no. I thought that's what he	02:25
10	said.	02:25
11	THE WITNESS: Click the URL I have in	02:25
12	citation 61 in my report. It says July 5, 2019, which	02:25
13	is the same date. Maybe I'm overdoing it here.	02:25
14	Right. So it's fine. We can move on. July 5. We	02:25
15	can move on.	02:25
16	I will assume it's the one I'm citing. I	02:25
17	was referring to clicking on the URL. But there is no	02:25
18	need. It's fine.	02:25
19	BY MR. MAO:	02:25
20	Q. Got it. Okay.	02:25
21	So looking at this -- give me a sec here. I	02:25
22	think I have a technical difficulty. I'm sorry. Give	02:26
23	me a sec.	02:26
24	Can you go to page 3 of this document on the	02:26
25	.pdf?	02:26

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1           You see there it says "The use of private           02:26  
2       browsing mode should not be detectable by websites."       02:26  
3           Do you see that? And.           02:26  
4           And you cited this -- sorry. And you cited       02:26  
5       this in paragraph 72 of your report.           02:27  
6           Do you see that?           02:27  
7       A. I do.           02:27  
8       Q. Do you believe that websites here include       02:27  
9       Google?           02:27  
10           MR. ANSORGE: Objection. Vague.           02:27  
11           THE WITNESS: Which particular websites are       02:27  
12       you referring to that they may be Google websites?       02:27  
13       You don't have to tell me all but just to --       02:27  
14       BY MR. MAO:           02:27  
15       Q. No. I'm saying section 3 of this document       02:27  
16       says "The use of private browsing modes should not be       02:27  
17       detectable by websites."           02:27  
18           And you cited to this in your report at       02:27  
19       paragraph 72.           02:27  
20           We don't disagree about what the document       02:27  
21       says the fact that you cited it; right?           02:27  
22       A. I do not disagree.           02:27  
23       Q. Right.           02:27  
24           So what I'm saying is "detectable by           02:27  
25       websites," do you believe that websites includes       02:27

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1 Google? 02:27

2 MR. ANSORGE: Objection. Vague. 02:27

3 THE WITNESS: I can rephrase your question 02:27

4 or I could ask to be more specific about what you mean 02:28

5 by Google. Google is a big company. It has a lot of 02:28

6 different websites that belong to Google. 02:28

7 BY MR. MAO: 02:28

8 Q. Okay. Would you believe that the use of 02:28

9 private browsing mode and the fact they should not be 02:28

10 detectable by Google would be consistent with 02:28

11 deception? 02:28

12 MR. ANSORGE: Objection. Vague and form. 02:28

13 THE WITNESS: I believe that as I cite and 02:28

14 as the observation say, it should not be detectable by 02:28

15 the website; that a user is accessing the website that 02:28

16 is at the top of the browser and the user is 02:28

17 accessing, it should not be detectable by that website 02:28

18 whether the user is or is not in private browsing mode 02:28

19 that would include all websites. 02:29

20 BY MR. MAO: 02:29

21 Q. And all websites would include Google. 02:29

22 Is that correct? 02:29

23 A. You mean WWW dot Google dot com, for 02:29

24 example? You see what I mean? I'm just trying to 02:29

25 figure out -- 02:29

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1 Q. Sure. Or WWW dot double click dot com. 02:29

2 A. That's -- you see that's why I'm asking. 02:29

3 That's what I'm trying to figure out. 02:29

4 Q. Yeah. 02:29

5 A. Any website that is offering something of 02:29

6 interest -- I mean, I don't want overcomplicate this. 02:29

7 But let me say this: 02:29

8 Yes, I think that it should include all 02:29

9 websites. And let me -- just to put some meat into 02:29

10 it, the point of this -- and I believe the Exhibit 8 02:29

11 also says this -- is that there is a fear that if 02:29

12 someone cites new that somebody in the private 02:30

13 browsing mode, they may degrade the service level. 02:30

14 Because, for example, let's say I'm looking 02:30

15 at New York Times, you know, all these websites have 02:30

16 revenue throughout, so if they knew that I am in 02:30

17 private browsing mode, given the particular 02:30

18 characteristics of the private browsing mode, they may 02:30

19 choose not to serve me. Who knows? 02:30

20 Because when I'm in private browsing mode, 02:30

21 the websites I am visiting do not find their way into 02:30

22 my profile, and hence the whole ecosystem that they 02:30

23 are relying, the publishers in, would be compromised. 02:30

24 That's why the W3C is saying this. 02:31

25 Q. Okay. Can you take a look at Exhibit 9? 02:31

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1 Take your time to read that. 02:31

2 (Plaintiffs' Exhibit 9 was 02:31

3 marked for identification.) 02:31

4 THE WITNESS: I read the -- this three-page 02:34

5 document. 02:34

6 BY MR. MAO:

7 Q. Okay. If you look at your opinion at 02:34

8 paragraph 63, you say that "Analytics user IDs are not 02:34

9 used to join sign-in user data." 02:34

10 Do you see that? 02:34

11 A. Let me read that paragraph. I remember 02:34

12 something to that effect but let me read it. 02:35

13 Q. Please. 02:35

14 A. I don't see in this paragraph what you said. 02:35

15 I, however, read statements to that effect earlier. I 02:35

16 can go through my section, if you would like. 02:35

17 Q. Well, my question to you is: Do you agree 02:35

18 that GA user IDs are linked with Biscotti IDs in 02:35

19 certain user logs looking at Exhibit 9? 02:36

20 MR. ANSORGE: Objection. Vague. 02:36

21 Mischaracterizes Exhibit No. 9. Assumes facts not in 02:36

22 evidence. 02:36

23 THE WITNESS: If that was ever to happen, 02:36

24 the Biscotti IDs would be encrypted. So that wouldn't 02:36

25 be a problem when it comes to whether a user can be 02:36

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1 identified from the data at issue because a user 02:36  
2 wouldn't be able to be identified by the data at 02:36  
3 issue. 02:36

4 BY MR. MAO: 02:36

5 Q. But you agree with me that encryption can be 02:36  
6 decrypted by the same encrypting party, so long as 02:36  
7 they keep a key. 02:36

8 Isn't that correct? 02:36

9 MR. ANSORGE: Objection. Incomplete 02:36  
10 hypothetical. Vague. Calls for speculation. 02:36

11 THE WITNESS: I would prefer to keep this 02:37  
12 specific, more specific to the case. So let me answer 02:37  
13 as follows: 02:37

14 Google has designed a system back in 2016 02:37  
15 called [REDACTED] precisely to make it very, very hard for a 02:37  
16 bad actor -- and by bad actor, I mean a person that 02:37  
17 could violate Google's policies, acting -- I don't 02:38  
18 know -- criminally, I don't know. I'm not an 02:38  
19 attorney -- for a bad actor, or even for somebody by 02:38  
20 mistake, to do what you said. 02:38

21 Because the only building block in this 02:38  
22 bigger Google system that could do this decryption is 02:38  
23 this [REDACTED]. And I can talk a lot about this. I 02:38  
24 have a lot of information in my report. But it's [REDACTED] 02:38  
25 [REDACTED] 02:38

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1 [REDACTED] 02:38

2 BY MR. MAO:

3 Q. Okay. But the [REDACTED] can decrypt what 02:38

4 Google encrypts. 02:38

5 Isn't that correct? 02:38

6 MR. ANSORGE: Objection. Vague. Incomplete 02:38

7 hypothetical. 02:38

8 THE WITNESS: Maybe this is going to help. 02:39

9 Let me see. So the -- I'm looking at my report now. 02:39

10 Just one sec. 02:39

11 So the [REDACTED] has the keys and can 02:39

12 decrypt in accordance to the rules and the policies 02:39

13 that it is running. It's a piece of software. But, 02:39

14 yes, it could decrypt. 02:39

15 BY MR. MAO: 02:39

16 Q. Okay. Let me introduce Exhibit 10, which 02:39

17 will help a little bit. I presume you've seen this 02:40

18 document which is a part of the [REDACTED] documentation. 02:40

19 It's Exhibit No. 10, if you don't mind. 02:40

20 (Plaintiffs' Exhibit 10 was 02:40

21 marked for identification.) 02:40

22 THE WITNESS: Let me -- the Bates -- I've 02:40

23 seen a lot of [REDACTED] documents for the record. 0774 02:40

24 double check. It's listed. 02:40

25 I do not think -- okay. I'm downloading it 02:40

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1 and putting it in. 02:41

2 BY MR. MAO:

3 Q. Why don't we let it download first then. 02:41

4 Let me go back to Exhibit No. 9 real fast. 02:41

5 Let me just ask you a quick question regarding No. 9. 02:41

6 Do you know whether or not for the logs that 02:41

7 contain the GA user ID and join beacons -- do you see 02:41

8 that there in pages 1 and 2 on 9? 02:41

9 A. Just one second. Downloading 9 as well if 02:41

10 you're going to have follow-up. 02:41

11 Okay. So I am at Exhibit 9. 02:41

12 Go ahead, please. What's your question? 02:41

13 Q. My question is do you know whether or not 02:41

14 the Biscotti in the logs referred to are actually 02:41

15 encrypted? 02:41

16 A. Which particular logs are you referring to? 02:42

17 Q. The join beacon logs. It's the bottom of 02:42

18 page 1, going onto page 2. 02:42

19 A. So I'm going to answer as follows because 02:42

20 there are so many different log names, as I've said 02:42

21 already, that it's extremely hard to say whether in 02:42

22 the -- you know, 02:42

23 [REDACTED] 02:42

24 [REDACTED] log what is or is not going on. 02:42

25 But let me answer as follows, and maybe I 02:42

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1 can help explaining by pointing out to pictures in 02:42  
2 my -- 02:42  
3 Q. My question is actually fairly simple and 02:42  
4 straightforward, Professor. I'm trying to finish. 02:42  
5 I'm just asking you whether or not you know 02:42  
6 the Biscotti IDs in these logs are encrypted or not? 02:42  
7 Unless your report has a specific explanation in 02:43  
8 response to my question, which I can assure you it 02:43  
9 does not, I'm asking you a pretty simple question, I 02:43  
10 think. 02:43  
11 MR. ANSORGE: Objection. Argumentative. 02:43  
12 THE WITNESS: My report has explanation -- 02:43  
13 has an explanation to the following effect, and I can 02:43  
14 go through this, if you want. Let me just go to the 02:43  
15 report at exactly where it says. 02:43  
16 BY MR. MAO:  
17 Q. But in response to my question? 02:43  
18 A. Yes. 02:43  
19 Q. I just want to make sure. 02:43  
20 Okay. Let's do that. 02:43  
21 Where? Which? 02:43  
22 A. Give me a second to go on my report, and go 02:43  
23 through the corresponding paragraph. 02:43  
24 Okay. So now your question on Exhibit 9 you 02:45  
25 said? 02:45

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1 Q. Mm-hm. 02:45

2 A. Would be whether logs that contain the GA -- 02:45

3 GAIA and a Biscotti ID, whether in that log the 02:45

4 Biscotti ID is or is not encrypted; correct? 02:45

5 Q. Yeah. 02:45

6 Sorry. Which paragraph are you referring to 02:45

7 in your report? 02:45

8 A. No. I'm not -- I went through my report and 02:45

9 now I'm asking you to repeat your question. 02:45

10 Q. Yeah. I was trying to move on and simply 02:46

11 finish with Exhibit No. 9. 02:46

12 A. Mm-hm. 02:46

13 Q. Right? 02:46

14 Which is simply asking you do you know 02:46

15 whether or not these join beacon logs contain 02:46

16 encrypted or un-encrypted Biscottis? 02:46

17 A. Which join beacon logs are you referring to? 02:46

18 Q. Any of those [REDACTED]. 02:46

19 A. Let me see which [REDACTED] you are talking 02:46

20 about. 02:46

21 Any of these [REDACTED], meaning which [REDACTED]? 02:46

22 Q. Should be [REDACTED], [REDACTED], 02:46

23 and [REDACTED]. 02:46

24 A. So these are logs, but I was referring to 02:46

25 the join beacons. Because the bold phrase says 02:46

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1 "What logs contain both the GA user ID," meaning the 02:47  
2 GAIA, "and join beacons?" 02:47  
3 Q. Wait, what? Say it again? What did you 02:47  
4 just say? 02:47  
5 A. I'm reading Exhibit 9. It says "What logs 02:47  
6 contain" -- okay. 02:47  
7 You are asking me whether on the three 02:47  
8 particular logs that you asked and that you mentioned 02:47  
9 at the beginning of page 2, whether in these three 02:47  
10 logs the GAIA ID and the Biscotti ID -- whether the 02:47  
11 Biscotti ID is encrypted. 02:47  
12 Is this what you're asking me? 02:47  
13 Q. Yeah. You're saying for the join beacon 02:47  
14 logs at the end of page 1 to the beginning of page 2 02:47  
15 has GAIA IDs or Biscotti IDs in them? 02:47  
16 A. No. I'm asking -- okay. Why don't you ask 02:47  
17 your question again? 02:47  
18 Q. Okay. Which logs -- which of those [REDACTED] 02:47  
19 logs contain encrypted GAIA IDs? 02:47  
20 A. I never said anything about -- 02:48  
21 MR. ANSORGE: Objection. Mischaracterizes 02:48  
22 Exhibit 9. 02:48  
23 THE WITNESS: I never said -- 02:48  
24 MR. ANSORGE: Assumes facts not in evidence. 02:48  
25 MR. MAO: I'm looking at a live transcript 02:48

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1 and you did say GAIA IDs. 02:48

2 THE WITNESS: Yeah. But I didn't say 02:48

3 encrypted GAIA IDs. 02:48

4 BY MR. MAO: 02:48

5 Q. Oh, okay. 02:48

6 So which ones are -- which ones are 02:48

7 encrypted or un-encrypted GAIA IDs for page 1 and -- 02:48

8 for these three logs? 02:48

9 MR. ANSORGE: Same objection. 02:48

10 Mischaracterizes Exhibit 9. Assumes facts not in 02:48

11 evidence. 02:48

12 BY MR. MAO: 02:48

13 Q. Please, sir, go ahead. 02:48

14 A. Let me follow up as follows: If you read 02:48

15 this document, even though I haven't read it before, 02:48

16 it says: 02:48

17 "As a result, for the logs identified 02:48

18 below, the GA user ID or Biscotti IDs may 02:48

19 not actually be present for a given 02:48

20 customer. Furthermore, Biscotti ID is 02:48

21 encrypted before it comes to 02:48

22 Google Analytics, and Google Analytics 02:48

23 cannot decrypt it." 02:48

24 So this is the essence of what we should be 02:49

25 discussing here. And that's also on my report. 02:49

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1 BY MR. MAO: 02:49

2 Q. Okay. We're talking about what logs contain 02:49

3 both the GA user ID and join beacons; right? At the 02:49

4 end of page 1, that's the section we're looking at? 02:49

5 A. Right. Right. 02:49

6 Q. So the GAIA IDs there and the join beacons, 02:49

7 you're saying what -- which of them is encrypted? 02:49

8 A. No -- 02:49

9 MR. ANSORGE: Objection. Mischaracterizes 02:49

10 Exhibit 9. Assumes facts not in evidence. Incomplete 02:49

11 hypothetical. 02:49

12 BY MR. MAO: 02:49

13 Q. Which ones are encrypted? 02:49

14 A. I am -- Biscotti IDs are encrypted before 02:49

15 they go to Google Analytics and Google Analytics 02:49

16 cannot decrypt it. 02:49

17 Biscotti IDs are also encrypted whenever 02:49

18 they are the same logs with a GAIA or the 02:49

19 GA user ID. And this is stated not just in my report. 02:49

20 It's also stated in this document. 02:50

21 Q. I see. 02:50

22 So in this section, which logs contain 02:50

23 encrypted GAIA IDs? 02:50

24 MR. ANSORGE: Objection. Mischaracterizes 02:50

25 Exhibit 9. Assumes facts not in evidence. Asks the 02:50

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1 witness to speculate. 02:50

2 THE WITNESS: I'm not discussing about 02:50

3 encrypted GAIA IDs at all. When it comes to 02:50

4 encryption, I'm pointing out the fact if you look at 02:50

5 the last sentence of the second paragraph in the first 02:50

6 page, it says: 02:50

7 "Furthermore, Biscotti ID is 02:50

8 encrypted before it comes to 02:50

9 Google Analytics and Google Analytics 02:50

10 cannot decrypt it." 02:50

11 This is a general statement for the whole 02:50

12 document. It applies -- the whole document enhance 02:50

13 all the logs, and that's basically what I'm saying. 02:51

14 I'm saying that the Biscotti ID is encrypted. 02:51

15 Q. Okay. So which logs here contain encrypted 02:51

16 or un-encrypted GAIA IDs? 02:51

17 MR. ANSORGE: Yeah. Objection 02:51

18 mischaracterizes Exhibit 9. Assumes facts not in 02:51

19 evidence. 02:51

20 MR. MAO: I'm going to -- 02:51

21 MR. ANSORGE: Calls for speculation. 02:51

22 MR. MAO: I'm going to warn you to stop 02:51

23 trying to coach the witness, Joey. 02:51

24 MR. ANSORGE: I'm making a record, Mr. Mao. 02:51

25 If you want to try to exploit a semantic clash, you -- 02:51

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1 MR. MAO: Move to strike, Counsel. 02:51

2 MR. ANSORGE: I don't think it's going to 02:51

3 be -- 02:51

4 MR. MAO: I'm warning you one more time, 02:51

5 Joey. 02:51

6 BY MR. MAO: 02:51

7 Q. Go ahead. Please answer the question. 02:51

8 A. Can you repeat this question, please? 02:52

9 Q. Yes. 02:52

10 Which of these [REDACTED] logs here contain 02:52

11 encrypted GAIA IDs? 02:52

12 MR. ANSORGE: Same objection. 02:52

13 THE WITNESS: I haven't looked at these 02:52

14 particular logs. I don't recognize them by name. 02:52

15 However, I can say the following that as you can see 02:52

16 also in my report in multiple places -- let me just 02:52

17 find one, for example. 02:52

18 Here the key is -- I assume that you're -- 02:52

19 actually, I don't want to assume anything about your 02:53

20 question. 02:53

21 Both GAIA and Biscotti arrive encrypted on 02:53

22 Google and only [REDACTED], tying it -- this discussion back 02:53

23 to what we were discussing -- can decrypt them and has 02:53

24 the particular rules and policies to decide. And it 02:53

25 is making sure that if ever a GAIA ID and a Biscotti 02:53

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1 ID find their way on the same logs, the Biscotti ID 02:53  
2 will be encrypted. 02:53  
3 So this is the gist of what we are 02:54  
4 discussing in addition to the fact that on top of 02:54  
5 that, Google Analytics always gets Biscotti IDs 02:54  
6 encrypted, as I already discussed. 02:54  
7 So your question about -- so can you repeat 02:54  
8 again the question? 02:54  
9 BY MR. MAO:  
10 Q. Yeah. I'm asking you these [REDACTED] logs, 02:54  
11 right -- 02:54  
12 A. Uh-huh. 02:54  
13 Q. -- do they contain GAIA IDs and potentially 02:54  
14 encrypted Biscotti IDs? 02:54  
15 A. I -- 02:54  
16 MR. ANSORGE: Same objection. 02:54  
17 THE WITNESS: I wouldn't know because I 02:54  
18 haven't looked into these particular [REDACTED] logs; 02:54  
19 right? 02:54  
20 So they do say -- this document says they 02:54  
21 contain the GAIA ID and join beacons. That's what 02:54  
22 this is entitled. 02:55  
23 BY MR. MAO: 02:55  
24 Q. Got it. 02:55  
25 And what exactly is a join beacon? 02:55

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1           A.     Well, this is what I was asking to tell me           02:55  
2     because I have not seen this document before, and I'm           02:55  
3     sure that it is a document in relation to the           02:55  
4     deposition of Stephen Chung, I believe. And hence it           02:55  
5     is out of context for me, right, unless I go to the           02:55  
6     deposition of Stephen Chung or you offer me more           02:55  
7     documents to see what this document is referring to as           02:55  
8     join beacons.           02:55

9           Q.     Do you know what join beacons for           02:56  
10    Google Analytics logs are?           02:56

11                 I swear to you, Professor, this is something           02:56  
12    in which you really should know. And I'm not trying           02:56  
13    to trick you on this one.           02:56

14                 MR. ANSORGE: Objection. Argumentative.           02:56

15                 MR. MAO: There are numerous -- numerous           02:56  
16    documents referring to this, and I am entitled to an           02:56  
17    answer on this one.           02:56

18                 And I will -- Counsel, if you try to           02:56  
19    obstruct and coach him on this any more, I will seek           02:56  
20    for Court sanctions on this one. I will run a search           02:56  
21    to show you how often the term "join beacons" pops up           02:56  
22    with Google Analytics logs and I'm absolutely entitled           02:56  
23    to an answer from your expert. Just try Joey, please.           02:56

24                 MR. ANSORGE: Mr. Mao, it's not a memory           02:56  
25    test, as I stated before.           02:56

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1 BY MR. MAO: 02:56

2 Q. So can you answer my question, sir? 02:56

3 MR. ANSORGE: If you have a specific thing, 02:56

4 why don't you show him a specific document. 02:56

5 MR. MAO: I am showing him a specific 02:56

6 document that refers to join beacons. 02:56

7 BY MR. MAO: 02:56

8 Q. Sir, do you know what join beacons for 02:56

9 Google Analytics logs are? 02:56

10 MR. ANSORGE: Objection. Argumentative. 02:57

11 THE WITNESS: I do not understand what you 02:57

12 mean by join beacons without giving me some context. 02:57

13 For example, in my report, I'm referring multiple 02:57

14 times to tracking beacons, referring to beacons. 02:57

15 There are other areas in documents that I've read that 02:57

16 they refer to beacons or tracking beacons or 02:57

17 join beacons. 02:57

18 Perhaps you can offer a document about 02:57

19 Google Analytics that talks about join beacons and 02:57

20 then I will know exactly what you are talking about. 02:57

21 BY MR. MAO:

22 Q. Sitting here right now, you're not able to 02:57

23 tell me what join beacons for Google Analytics are. 02:57

24 Isn't that true? 02:57

25 MR. ANSORGE: Same objection. 02:57

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1 THE WITNESS: No. I am not able to tell you 02:57  
2 what in this context is a join beacon. I mean, I'm 02:58  
3 telling you, I'm going through my report, I do mention 02:58  
4 join beacons once as extracted from a document ending 02:58  
5 at 1695. I will be more than happy to open up 02:58  
6 document 1695, meaning just offer some context so that 02:58  
7 I can be precise. 02:58

8 BY MR. MAO:

9 Q. But we don't dispute that you opined on 02:58  
10 join beacons in your expert report. 02:58

11 Isn't that correct? 02:58

12 MR. ANSORGE: Objection. Vague and 02:58  
13 ambiguous. Argumentative. And mischaracterizes prior 02:59  
14 testimony. 02:59

15 THE WITNESS: I am opining I offer 13 02:59  
16 opinions in my report. And last part of my report is 02:59  
17 about the question of joining unidentified with 02:59  
18 identified data. And I -- in particular I call it 02:59  
19 data joinability. So I am opining about that in a lot 02:59  
20 of places, and I will be happy to go through this with 02:59  
21 you, more than happy. 02:59

22 But, again, the join beacons out of context 02:59  
23 is not something that I feel comfortable making an 03:00  
24 opinion at this point. 03:00

25 ///

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1 BY MR. MAO: 03:00

2 Q. You do realize that according to your 03:00

3 report, you read the deposition of Chung. 03:00

4 Do you recall that? 03:00

5 A. Yes. But I've read like 10s and 10s and 10s 03:00

6 of depositions. And even Google engineers are using 03:00

7 many times different terms for different things, 03:00

8 depending on which groups they are working on. 03:00

9 So I don't see what is the problem with you 03:00

10 offering -- actually, I don't want to state that. 03:00

11 It's fine. 03:00

12 All I'm saying is if you give me more 03:00

13 context, I will be able to be more accurate and 03:00

14 perhaps more helpful. 03:00

15 Q. Have you ever looked for joining beacons in 03:00

16 the -- in the documents -- sorry. Strike that. 03:00

17 Have you ever looked for joining beacons in 03:00

18 the logs that you actually inspected? 03:01

19 A. I cannot answer this question because it is 03:01

20 using the term joining beacons, and we have been 03:01

21 discussing for five minutes about the fact that I 03:01

22 don't feel comfortable to interpret the term 03:01

23 join beacons in a certain way out of some context. 03:01

24 Q. So this brings me back to one of the 03:01

25 questions I wanted to ask very early on. 03:01

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1 Who -- who -- actual names -- who helped you 03:01  
2 run these tests that you were talking about? 03:01  
3 You said that you had counsel help you run 03:01  
4 tests. 03:01  
5 Who are the people? 03:01  
6 A. The name of the person -- 03:01  
7 MR. ANSORGE: Objection. Form. 03:01  
8 THE WITNESS: So the name of the person that 03:01  
9 helped me run the tests that I am referring to and I'm 03:02  
10 including on my report, first name is Tracy. I don't 03:02  
11 remember the last name. I can easily find it, if you 03:02  
12 want. 03:02  
13 BY MR. MAO: 03:02  
14 Q. Anyone else? 03:02  
15 A. No. 03:02  
16 Q. And did this Tracy, did you refer to her in 03:02  
17 your report? 03:02  
18 A. I don't think so. I don't remember. I can 03:02  
19 search for it. 03:02  
20 Q. Do you disclose in your report that this 03:02  
21 Tracy helped you run tests? 03:02  
22 A. We had a discussion about the experiments or 03:02  
23 the tests, if you wish, that they are included in my 03:02  
24 report, other ID, and how they are executed, how they 03:03  
25 took place. And during this discussion, I clarified 03:03

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1 to you that I am overseeing it. The execution, I give 03:03  
2 specific instructions, but I'm not running them 03:03  
3 myself. In particular, not any, you know, machines or 03:03  
4 service that might belong to my permanent employer, 03:03  
5 USC. And for this reason, I ask counsel to run 03:03  
6 specific tests for me. 03:03

7 So I think we have covered the topic 03:03  
8 already. 03:03

9 Now you asked me the specific person that 03:03  
10 had received instructions from me and run the test, 03:03  
11 which is the reason why I'm giving you the name. 03:03

12 Q. And what are the qualifications of this 03:03  
13 Tracy? 03:03

14 MR. ANSORGE: Objection. Vague. 03:04

15 THE WITNESS: Counsel direct me to this 03:04  
16 person as the right person to run these tests. 03:04

17 BY MR. MAO: 03:04

18 Q. You can't remember the last name of the 03:04  
19 person that helped you run tests after spending -- 03:04

20 MR. ANSORGE: Objection. 03:04

21 BY MR. MAO:

22 Q. -- 200 hours on this?

23 MR. ANSORGE: Objection. Argumentative. 03:04

24 And still not a memory test, Mr. Mao. 03:04

25 THE WITNESS: Usually when I work with 03:04

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1 collaborators, I always refer to them their first 03:04  
2 name. This is just my way of collaborating with 03:04  
3 people. It could be Gao. But I find this immaterial, 03:04  
4 if I'm allowed to say. 03:04  
5 BY MR. MAO: 03:05  
6 Q. Did you find her qualifications immaterial 03:05  
7 as well and therefore you don't remember right now? 03:05  
8 MR. ANSORGE: Yeah. Objection. 03:05  
9 Argumentative. 03:05  
10 THE WITNESS: Not at all. I do consider 03:05  
11 extremely important that my collaborators have 03:05  
12 appropriate qualifications and this has been -- the 03:05  
13 assurance to this effect has been given to me by 03:05  
14 Mr. Ansorge. 03:05  
15 BY MR. MAO: 03:05  
16 Q. So what are her qualifications, sir, sitting 03:05  
17 here today, defending your opinion? 03:05  
18 MR. ANSORGE: Objection. Asked and 03:05  
19 answered. 03:05  
20 THE WITNESS: I already answered. But, 03:05  
21 again, I got an assurance that she has the right 03:05  
22 qualifications. I don't have a list off the top of my 03:05  
23 head now to tell you X 1, 2, 3, 4, 5, 6. 03:05  
24 I did find her quite able to execute this 03:05  
25 stuff. I was asking her. I can say that. 03:05

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1 BY MR. MAO: 03:06

2 Q. Did you check whether or not she had 03:06

3 technical qualifications to run the tests that you 03:06

4 needed? 03:06

5 A. I inquired about it and I've been assured 03:06

6 that she has. I didn't ask her to show me her 03:06

7 diplomas to verify myself that they are genuine, sir, 03:06

8 so... 03:06

9 Q. And what are her technical qualifications, 03:06

10 as you sit here today? 03:06

11 MR. ANSORGE: Objection. Asked and 03:06

12 answered. Argumentative. 03:06

13 BY MR. MAO: 03:06

14 Q. What are they specifically? 03:06

15 A. I got assurance from Mr. Ansorge that she 03:06

16 has technical qualifications. 03:06

17 I don't want to say something that it's 03:06

18 inaccurate. I just don't like inaccurate answers. I 03:06

19 mean... 03:07

20 Q. Does she have more than a humanities degree? 03:07

21 A. For sure, yes. 03:07

22 Q. Okay. Does she have a technical degree? 03:07

23 A. As far as I recall, yes. 03:07

24 Q. What kind of technical degree? 03:07

25 A. I'm going to speculate -- not speculate. 03:07

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1 I'm going to try to remember to the best of my 03:07  
2 recollection. I think it's a computer science 03:07  
3 Master's degree. But I'm not sure. I mean -- 03:07  
4 MR. ANSORGE: Objection. Asked and 03:07  
5 answered. 03:07  
6 And at this point I'd also like to caution 03:07  
7 the witness to not reveal privileged communications 03:07  
8 and to not speculate about the qualifications of 03:07  
9 anybody. 03:07  
10 MR. MAO: Mr. Ansorge, you are on extremely 03:07  
11 thin ice. You know I like you -- 03:07  
12 MR. ANSORGE: You asked the same question 03:07  
13 four times over, Mr. Mao. You're badgering the 03:07  
14 witness with the same question four times over. And 03:07  
15 he's nice, he's polite, and he's providing different 03:07  
16 responses each time, and he's searching for answers to 03:08  
17 your question. But if you were to actually look at 03:08  
18 the transcript, you've asked him repeatedly the exact 03:08  
19 same question. 03:08  
20 BY MR. MAO: 03:08  
21 Q. How did you supervise Tracy's tests in this 03:08  
22 case? 03:08  
23 A. I have already answered this. Not the last 03:08  
24 five minutes, but about a couple of hours ago when we 03:08  
25 discussed about the way -- by ways I have run the test 03:08

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1 I have -- I am reporting in my report. I can repeat 03:08  
2 this or I can -- I don't mind. I can repeat this, or 03:08  
3 you can look back at the transcript. 03:08  
4 Q. Did you produce all of the tests? 03:08  
5 A. I'm not sure what you mean by that. 03:08  
6 Q. What did you and Tracy test? 03:08  
7 A. I am referring to the tests that I include 03:08  
8 in my report. You can see in my report there are some 03:09  
9 tests and some numbers. 03:09  
10 Q. Which parts of the -- which parts of your 03:09  
11 report and tests were done by Tracy? 03:09  
12 MR. ANSORGE: Objection. Mischaracterizes 03:09  
13 testimony. 03:09  
14 THE WITNESS: There are no parts or tests of 03:09  
15 my report that they were done by Tracy. There are 03:09  
16 some tests, data tests, data experiments, for which I 03:09  
17 have oversaw and dictated and described in detail to 03:09  
18 be executed. And Tracy, Ms. Gao -- I don't know if I 03:09  
19 have the right last name. It's more polite, I would 03:09  
20 say, to use Ms. Gao in this official context, if this 03:10  
21 is the right last name -- was the person from counsel 03:10  
22 that executed my instructions. 03:10  
23 Now, that I corrected the characterization 03:10  
24 of whether somebody else has executed anything or 03:10  
25 produced anything in my report, which is not the case, 03:10

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1 I will tell you which parts of my report have numbers 03:10  
2 based on data. 03:10  
3 So there are two types -- 03:10  
4 BY MR. MAO:  
5 Q. No. No, no, sir. You need to be able to 03:10  
6 tell me, okay, which parts of your report, okay, were 03:10  
7 done or assisted by Tracy. Let's start there so that 03:10  
8 we don't get into an argument. 03:10  
9 MR. MAO: And, Joey, if you so much as try 03:10  
10 to tamper with this, we're going to the Court. 03:11  
11 MR. ANSORGE: Objection. Same objection. 03:11  
12 Argumentative. 03:11  
13 MR. MAO: Go ahead. 03:11  
14 BY MR. MAO: 03:11  
15 Q. Go ahead, Professor. 03:11  
16 A. Yes. So let's just do this and move on. 03:11  
17 Okay. So let's go down. I'm scrolling. 03:11  
18 In an effort to give you a list, can I use a 03:12  
19 Post-it™ to put notes or should I remember in the 03:12  
20 process which parts are -- 03:12  
21 Q. Well, technically you were supposed to 03:12  
22 disclose that as part of the report, but since you 03:12  
23 didn't do that, you know, like I don't know what you 03:12  
24 need right now in order to demarcate this. But I 03:12  
25 would like some type of demarcation as to which parts 03:12

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1       were assisted by Ms. Gao. 03:12

2               MR. ANSORGE: Objection. Argumentative. 03:12

3               And you appear to entirely have forgotten 03:12

4       that there's a stipulation between the parties that 03:12

5       extend to drafts and preparation. And although that 03:12

6       was a very important issue -- 03:12

7               MR. MAO: Not tests. I mean, if your -- if 03:12

8       your colleague is running tests, technical tests for a 03:12

9       professor, I am absolutely entitled to that. It 03:12

10      should have been disclosed in the reporting, and you 03:12

11      know that, Joey. 03:12

12              MR. ANSORGE: This is the equivalent -- 03:12

13      BY MR. MAO: 03:12

14              Q. What part of the test or analysis was done 03:12

15      by the lawyer? 03:12

16              MR. ANSORGE: Mr. Mao, asked and answered 03:13

17      many times over. 03:13

18              THE WITNESS: So, one, I don't understand 03:13

19      all the legal stuff you guys are discussing. I'm 03:13

20      going to again say the following: 03:13

21              The experiments test, I'm going to talk 03:13

22      about over the next few minutes, as I will be scanning 03:13

23      my report, have been done -- have been run essentially 03:13

24      by me in the sense that I supervised them and I 03:13

25      fully -- I gave very, very precise instructions, 03:13

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1 Mr. Mao. It's like a lot more precise instructions 03:13  
2 than the ones I give on my students, to tell you the 03:13  
3 truth. 03:13

4 It's like instructions I give to undergrads 03:13  
5 when they are working for me in the context of a 03:13  
6 grant. Like do this, one, two, three, four, five. 03:13  
7 Extremely precise. You cannot mess it up. It's an 03:13  
8 execution task at that point. 03:13

9 And then the reason why I did it is because 03:14  
10 I did not want to use USC equipment to actually run 03:14  
11 the CPU cycles required to do it. So I gave very 03:14  
12 precise instructions that an undergrad could do 03:14  
13 easily. 03:14

14 And then Ms. Tracy Gao was the person 03:14  
15 that -- hopefully I'm not misspelling her name, last 03:14  
16 name -- that did them and then sent the data back to 03:14  
17 me, and then there was back and forth, to make sure 03:14  
18 everything is properly done. 03:14

19 So the first such case in my report, if you 03:14  
20 go to appendix G, profile data, this is the first 03:14  
21 case. And let me -- what I'm doing is I'm doing a 03:14  
22 search to also point out to where you will see me 03:14  
23 mentioning this in the actual report. 03:14

24 Because Mr. Hochman himself cited this 03:14  
25 DBLS data, I got the data and I ran the test we are 03:15

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1 discussing right now. And you can find more in 03:15  
2 paragraph 80 of my report that refers to this data and 03:15  
3 the tests. 03:15  
4 BY MR. MAO: 03:15  
5 Q. Any other parts that were either done by 03:15  
6 Ms. Gao or assisted by Ms. Gao? 03:15  
7 A. As I said, no parts of my reports was done 03:15  
8 by Ms. Gao. 03:15  
9 Q. What part contains tests run by Ms. Gao? 03:15  
10 A. I'm sorry. What -- 03:15  
11 MR. ANSORGE: Objection. Argumentative. 03:15  
12 Asked and answered. 03:15  
13 BY MR. MAO: 03:15  
14 Q. What parts of your report contain tests run 03:15  
15 by Ms. Gao? 03:15  
16 A. Run. Okay. 03:15  
17 What parts of my report contain test results 03:15  
18 for which Ms. Gao executed the actual program in 03:16  
19 servers other than mine is the way I would put it for 03:16  
20 one more time. 03:16  
21 And -- so, Mr. Mao, let's just agree on what 03:16  
22 I'm saying that has happened. I'm under oath. I'm 03:16  
23 telling you exactly what has happened. So let's just 03:16  
24 characterize it the way it is and I'm giving you -- I 03:16  
25 promise I'm giving you, as always, very accurate 03:16

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1 information. 03:16

2 So paragraph 80, I am referring to this, and 03:16

3 there is a table, you can see this table with some 03:16

4 Biscotti cookies and UUIDs and a creation timestamp. 03:16

5 Then paragraph 82 is referring to these two 03:16

6 documents that we had a discussion about this earlier 03:16

7 on in my deposition, and you can find them in the 03:16

8 appendix G, as I said, profile data. Paragraph 82 is 03:16

9 referring to the results of this test. 03:16

10 Then there is one more place that I would 03:17

11 like to bring to your attention to that matter and 03:17

12 this is -- 03:17

13 So would you like me to give you paragraphs 03:17

14 so that it's very precise, paragraph numbers? 03:17

15 Q. Yes, sir. Because precise is how you began 03:17

16 the deposition? 03:17

17 A. Perfect. 03:17

18 If you go to paragraph 122, I am discussing 03:18

19 the fact that user agents are served by many, many, 03:18

20 many devices. I have some citations to the fact of 03:18

21 the top 10 most popular user agents. User agents, by 03:18

22 the way, are served by tens of millions of people in 03:18

23 the U.S. 03:19

24 And then in paragraph 122, I am using the 03:19

25 data submitted by the plaintiffs, and I'm doing 03:19

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1 basically a matching exercise and I'm reporting some 03:19  
2 numbers about user agents and they are common among 03:19  
3 multiple plaintiffs in this paragraph. 03:19

4 Q. Any other paragraphs or sections? 03:19

5 A. I am very meticulously going through this. 03:19

6 Okay. If you go to paragraph 120. 03:20

7 Q. Okay. 03:20

8 A. I am analyzing data produced in -- Google 03:20  
9 produced under the special master process, essentially 03:20  
10 the same data I was referring to before, for 03:20  
11 IP addresses now; that they have multiple GAIAs 03:20  
12 associated with them. And I actually found 03:21  
13 IP addresses with this property as well, particularly 03:21  
14 IP addresses that they correspond to more than one of 03:21  
15 the plaintiffs. 03:21

16 So 120 paragraph is showing IP addresses 03:21  
17 that correspond to more than one of the plaintiffs, 03:21  
18 and 122, as I already said, lists UAs that correspond 03:21  
19 to more than one of the plaintiffs. 03:21

20 And to be, as always, extremely precise, let 03:21  
21 me also go to the appendices to make sure there's no 03:21  
22 appendix related to this data. I don't remember. 03:21  
23 Just -- 03:21

24 Q. I'm curious, Professor, why didn't you ask 03:21  
25 Google for equipment to run your tests and 03:21

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1 experiments? 03:21

2 A. I didn't see the need for it. I don't 03:22

3 interact with Google at all. I haven't interacted 03:22

4 with anybody from Google at all throughout this 03:22

5 period. I haven't talked to a single person from 03:22

6 Google. 03:22

7 Q. How much would you estimate the equipment 03:22

8 would have cost you in order to be able to run these 03:22

9 experiments? The ones that you list in your report, 03:22

10 how much would it cost you? 03:22

11 A. I don't -- 03:22

12 MR. ANSORGE: Mr. Mao, I've been quiet for 03:22

13 quite a while, so let me refer you back to the 03:22

14 stipulation which you said does not apply. The first 03:22

15 part of it states explicitly that communications -- 03:22

16 MR. MAO: No speaking objections. Don't 03:22

17 make a speaking objection. 03:22

18 MR. ANSORGE: No. I'm telling -- I'm 03:22

19 speaking to you directly on this. We have a 03:22

20 stipulation saying the content of oral, written, or 03:22

21 other communications -- 03:22

22 MR. MAO: Mr. Ansorge -- 03:22

23 MR. ANSORGE: -- among and between -- 03:22

24 Mr. Mao -- 03:22

25 MR. MAO: The name is not disclosed as part 03:22

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1 of -- 03:22

2 MR. ANSORGE: -- counsel and the expert or 03:22

3 the expert staff and their supporting firms. 03:22

4 And you are explicitly asking about data 03:23

5 pulls that Dr. Psounis asked his counsel about. And 03:23

6 you're having that listed out in a form in which all 03:23

7 you're doing is creating heat at this point. 03:23

8 We have a specific stipulation that goes to 03:23

9 this issue, Mr. Mao. 03:23

10 MR. MAO: I asked him -- the last question 03:23

11 in which you interrupted me and went on this tirade 03:23

12 was asking him about how much the equipment would have 03:23

13 cost in order for him to acquire and do it himself. 03:23

14 Are you withdrawing -- are you going to 03:23

15 stand down or are we going to pause on that question? 03:23

16 MR. ANSORGE: What I'm objecting to is your 03:23

17 entire line of questioning about Ms. Gao -- 03:23

18 MR. MAO: Joey, my deposition -- stop, stop. 03:23

19 Okay? 03:23

20 BY MR. MAO: 03:23

21 Q. Professor, how much would the equipment have 03:23

22 cost in order for you to be able to not use USC's 03:23

23 equipment and do -- run the test on your own 03:23

24 equipment? 03:23

25 MR. ANSORGE: Objection. Calls for 03:23

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1 speculation. 03:23

2 THE WITNESS: I do not know. 03:24

3 BY MR. MAO: 03:24

4 Q. You do not know as a technical expert how 03:24

5 much it would have cost you, even an estimate? 03:24

6 A. I -- 03:24

7 MR. ANSORGE: Same objection. 03:24

8 THE WITNESS: I have not analyzed, looked 03:24

9 into it, counted cycles, so no. 03:24

10 BY MR. MAO: 03:24

11 Q. And it never occurred to you that you can 03:24

12 ask Google for equipment to run experiments -- run 03:24

13 these tests that you refer to in your report? 03:24

14 MR. ANSORGE: Objection. Mischaracterizes 03:24

15 Exhibit 1. Mischaracterizes prior testimony. And 03:24

16 argumentative. 03:24

17 THE WITNESS: As I said, I have not 03:24

18 interacted with anybody from Google throughout this 03:24

19 time. I don't feel like I am working for Google or 03:24

20 anything like that. I've been retained by the 03:24

21 counsel. The natural thing to do for me was to reach 03:24

22 out to counsel about this. And I'm going to stay out 03:24

23 of the legal arguments that you guys have. 03:25

24 BY MR. MAO: 03:25

25 Q. Have you -- you've done prior expert 03:25

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1 reports, technical expert reports in other cases. 03:25

2 Isn't that correct, Professor? 03:25

3 A. Correct. 03:25

4 Q. And people that assist you in the 03:25

5 formulation of your report in those other cases, did 03:25

6 you list them in your report? 03:25

7 A. I don't remember, but I believe -- I'm 03:25

8 trying to remember my recent report. I don't remember 03:25

9 if I listed them or not. It's been some months now. 03:25

10 Q. Do you know whether under the Rules of 03:25

11 Evidence and procedure for experts, do you know 03:25

12 whether or not you need to list people who assisted 03:26

13 you in the creation of your report? 03:26

14 A. No. 03:26

15 MR. ANSORGE: Mr. Mao, same objection 03:26

16 referring to the stipulation between the parties. I 03:26

17 don't want us to get into a shouting match, but it's 03:26

18 beyond the pale, nothing we've ever done with any of 03:26

19 your witnesses and something where you at this point 03:26

20 would have stopped the deposition. We won't do so 03:26

21 because the facts are on our side. But we plead with 03:26

22 you to return to substantive questioning and stop 03:26

23 harassing the witness in this fashion. 03:26

24 BY MR. MAO:

25 Q. Are you sure her last name was Gao, G-a-o? 03:26

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1	you mean by providing me direct materials.	03:28
2	Is it about the test? It's about what?	03:28
3	BY MR. MAO:	03:28
4	Q. Going back to Exhibit No. 9.	03:28
5	After you having read all those paragraphs	03:28
6	you did to find which Tracy we're talking about, do	03:28
7	you recall what joining beacons are for	03:28
8	Google Analytics?	03:28
9	MR. ANSORGE: Objection. Asked and	03:28
10	answered.	03:28
11	THE WITNESS: I'm giving you the same answer	03:28
12	I gave before.	03:28
13	BY MR. MAO:	03:28
14	Q. Which is what?	03:28
15	A. I don't know what is the rules here. What	03:28
16	are the rules here?	03:28
17	Q. The rules are if your attorney does not	03:28
18	instruct you to answer -- not to answer, you're	03:28
19	required to answer. So please, Professor --	03:28
20	MR. ANSORGE: Yeah.	03:29
21	BY MR. MAO:	03:29
22	Q. -- what are joining beacons for	03:29
23	Google Analytics?	03:29
24	MR. ANSORGE: There's valid objections.	03:29
25	Asked and answered. Argumentative. It's harassment	03:29

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1 at this point. Your direct flagrant violation of the 03:29  
2 stipulation the parties had reached is noted. 03:29  
3 I am shocked by it, Mr. Mao. It's not 03:29  
4 something you've done with you -- why don't you seek 03:29  
5 some discovery of Dr. Psounis' actual report and 03:29  
6 opinions instead of seeking discovery of his 03:29  
7 communications with counsel. 03:29  
8 BY MR. MAO: 03:29  
9 Q. Joining beacons, what are joining beacons 03:29  
10 for Google Analytics? 03:29  
11 MR. ANSORGE: Objection. Asked and 03:29  
12 answered. 03:29  
13 THE WITNESS: As I recall, I answered 03:29  
14 before. In order to give you a precise answer to 03:29  
15 that, I would like you to give me some additional 03:29  
16 documentation. For example, since this is -- this 03:29  
17 question is coming out of Exhibit 9, the deposition of 03:29  
18 Stephen Chung, then I would see exactly the context of 03:30  
19 what we are talking about. 03:30  
20 BY MR. MAO: 03:30  
21 Q. Do you know whether or not joining beacons 03:30  
22 is a common element or component of Google Analytics? 03:30  
23 A. Beacons, joining beacons, tracking beacons, 03:30  
24 there are a lot of -- all kinds of beacons in very, 03:30  
25 very different setups. It's a very complex system. I 03:30

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1 just don't want to mischaracterize anything. 03:30

2 Q. Sir, how do you reach your opinions on 03:30

3 joinability about Google Analytics if you don't even 03:30

4 sitting here today know what a joining beacon is for 03:30

5 Google Analytics? 03:30

6 MR. ANSORGE: Objection. Argumentative. 03:30

7 Form. 03:30

8 THE WITNESS: I will go through my report 03:30

9 and I can tell you exactly how I reached my opinions 03:30

10 about the joinability issue. It is covered in 03:31

11 opinion 3 of mine. Opinion 3 of mine is on a number 03:31

12 of things. It's "Private Browsing Profiles, 03:31

13 Service-Side Processes, and Data Joinability," which 03:31

14 is the reason why I am bringing it up to your 03:31

15 attention. 03:31

16 And I could also -- I can also actually even 03:31

17 give you a high level -- I don't mind doing that -- a 03:31

18 high-level summary of how I reached my opinion. 03:31

19 BY MR. MAO: 03:31

20 Q. Specifically about joining beacons for 03:31

21 Google Analytics. 03:31

22 Let me ask you, Professor, do you need to 03:31

23 know whether or not joining beacons for 03:31

24 Google Analytics is discussed by the -- by the expert 03:31

25 in which you are hired to rebut, Mr. Hochman? 03:31



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1           A.     There is discussion about what is beacons,           03:32  
2     including joining beacons in -- as far as I recall, in           03:32  
3     Mr. Hochman's report.   And you are welcome to give me           03:32  
4     Mr. Hochman's report as an exhibit, and that's going           03:32  
5     to actually help us move on.                                   03:32

6                     Because my opinion on joinability and the           03:32  
7     fact that there is no joining of unauthenticated and           03:32  
8     authenticated data in my opinion, depends on a lot of           03:32  
9     things.   And I'm going to go and explain to you now in           03:32  
10    what it depends because you are questioning -- you are           03:32  
11    asking me actually -- your question is, to the best of           03:32  
12    my understanding, "How are you reaching this opinion           03:32  
13    of yours?"   03:32

14                    So I am reaching this opinion of mine as           03:33  
15    follows:   03:33

16                    The -- first of all, the data that we are           03:33  
17    discussing about, the data at issue --                           03:33

18           Q.     Join beacons, Professor.                       03:33

19                   MR. ANSORGE:   Mr. Mao, please, why don't you           03:33  
20    let him respond to your question.                               03:33

21                   MR. MAO:   He's not.   He's trying to move on           03:33  
22    and shift to a different subject.                               03:33

23                   MR. ANSORGE:   Well, you have repeatedly           03:33  
24    interrupted him.   You've violated the stipulation the           03:33  
25    parties have reached.   You've applied a double               03:33

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1 standard that's entirely different from how we've 03:33  
2 treated your witnesses -- 03:33  
3 MR. MAO: Wait, wait, wait, wait. 03:33  
4 MR. ANSORGE: Why don't you let him answer 03:33  
5 your question. 03:33  
6 MR. MAO: Okay. So let's go back to your 03:33  
7 little objection here, okay, I violated a stipulation. 03:33  
8 Mr. Ansorge, do you know which Tracy the 03:33  
9 professor is speaking to? Because apparently he's 03:33  
10 having trouble recalling. 03:33  
11 Well? 03:33  
12 Before you can say I violate a stipulation, 03:33  
13 you need to tell me who this Tracy is. Mr. Ansorge? 03:33  
14 MR. ANSORGE: You're violating the 03:34  
15 stipulation, Mr. Mao. We can discuss it in detail -- 03:34  
16 MR. MAO: I don't know who the Tracy is. 03:34  
17 Who's this Tracy? Who is it? Mr. Ansorge, who is it? 03:34  
18 MR. ANSORGE: Who -- 03:34  
19 MR. MAO: What are her qualifications? 03:34  
20 MR. ANSORGE: Mr. Mao, he's referring to 03:34  
21 counsel that at his behest, went and looked up a 03:34  
22 simple data query. 03:34  
23 You've spent an hour or more focused on an 03:34  
24 aspect that's directly in flagrant violation of the 03:34  
25 stipulation the parties have reached. 03:34

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1           It's the equivalent of him asking for           03:34  
2       somebody to pull documents that relate to           03:34  
3       fingerprinting. That's what he's done with the data.   03:34  
4       He asks for, pulls for an IP address. Those are the   03:34  
5       pulls that were done. All of this is a direct           03:34  
6       violation of the stipulation, obviously.           03:34

7           The other part that I've been referring to,       03:34  
8       Mr. Mao, is that I bent over backwards with your       03:34  
9       witnesses to not interrupt them, to permit them to   03:34  
10      answer.   03:34

11          What we get from you, while those               03:34  
12      conversations are ongoing, are objections such as       03:34  
13      "Let the record reflect that the witness has asked for   03:34  
14      a document and counsel refuses to show it to him."   03:34

15          How often has Dr. Psounis now asked for           03:35  
16      Mr. Hochman's report, which is what he's actually       03:35  
17      rebutting? Why don't you convert this from a memory   03:35  
18      test to something that will actually meet his opinions   03:35  
19      on the basis on which they're formulated?           03:35

20          MR. MAO: Because I'm trying to figure out       03:35  
21      who this Tracy is and whether or not she actually has   03:35  
22      a computer science degree.                           03:35

23          What is your representation, Mr. Ansorge?       03:35

24          MR. ANSORGE: My representation is you are       03:35  
25      violating the stipulation by explicitly -- and I'll   03:35

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1 finish, I'm answering Mr. Mao -- by explicitly seeking 03:35  
2 discovery of communications with counsel. 03:35  
3 You have misrepresented what Dr. Psounis has 03:35  
4 been describing as simple lookups and queries as 03:35  
5 somehow being improper and you burned a huge amount of 03:35  
6 time. And you're now interrupting him when he is 03:35  
7 actually describing some of the basis in his opinions. 03:35  
8 And that's the extent of it. 03:35  
9 Now, I think I've made my objection clear on 03:35  
10 the record. I'm surprised that you're doing this to 03:35  
11 be frank, Mark. This is not something we have done to 03:35  
12 you, we would do to you. We'll -- we're going to have 03:36  
13 to probably take it up with the Court after this. 03:36  
14 MR. MAO: Take it up to the Court. Because 03:36  
15 his recollection is that you represented -- somebody 03:36  
16 at Quinn Emanuel represented that this Tracy has a 03:36  
17 technical degree. 03:36  
18 Okay? 03:36  
19 And assisted in the running of the tests. 03:36  
20 I am absolutely within my bounds to ask and 03:36  
21 figure out who this Tracy is, okay, who has the 03:36  
22 science degree. 03:36  
23 Does this Tracy have a science -- have a 03:36  
24 computer science degree or not? 03:36  
25 MR. ANSORGE: Objection. Direct violation 03:36

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1 of the stipulation the parties have reached. 03:36

2 Mr. Mao, why don't you ask the witness some 03:36

3 questions and he'll respond. 03:36

4 BY MR. MAO: 03:36

5 Q. Well, Professor, does she have a computer 03:36

6 science degree? 03:36

7 MR. ANSORGE: Objection. Asked and 03:36

8 answered. Objection. Violation of the stipulation 03:36

9 the parties have reached. 03:36

10 MR. MAO: You are going to go up to the 03:36

11 judge and say that it is -- in a technical deposition 03:36

12 of an expert, when I ask him who assisted them and 03:36

13 what kind of foundational competence they have in the 03:37

14 special matter under examination, you're going to say 03:37

15 that I am not entitled to that information, 03:37

16 Mr. Ansorge? 03:37

17 MR. ANSORGE: I'm going to say you were 03:37

18 explicitly inquiring into communications with counsel. 03:37

19 You understood that you were doing so at the time. 03:37

20 And you've done it for some reason instead of asking 03:37

21 the witness questions about their actual opinion. 03:37

22 That's something we can take up offline. 03:37

23 What I would plead with you, Mr. Mao, is why 03:37

24 don't you find your way back to the opinions that 03:37

25 Dr. Psounis has offered. There's 13 of them. You've 03:37

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1 asked about two at this point or three. Why don't you 03:37  
2 focus on those instead of his communications with 03:37  
3 counsel which are explicitly categorically excluded by 03:37  
4 stipulation of the parties. 03:37

5 MR. MAO: So who is Tracy then? Can you 03:37  
6 establish for me that she's actually covered by the 03:37  
7 stipulation? Who? Mr. Ansorge? 03:37

8 MR. ANSORGE: Same objection. 03:37

9 MR. MAO: You won't tell me who this Tracy 03:37  
10 is on the record. 03:37

11 MR. ANSORGE: I'm not being deposed here. 03:38  
12 Same objection. 03:38

13 MR. MAO: So then how am I supposed to take 03:38  
14 your word that this is covered by the stipulation? 03:38

15 Sir -- 03:38

16 MR. ANSORGE: Do you have any questions for 03:38  
17 Dr. Psounis? You indicated at one point that you were 03:38  
18 planning on finishing at 4:00 p.m. We are getting 03:38  
19 close to that time. 03:38

20 MR. MAO: No. No, I'm not. Because -- 03:38  
21 because -- you've got to undisclose either technical 03:38  
22 expert or nontechnical expert, and I'd like to know 03:38  
23 which one that is in an expert deposition. 03:38

24 MR. ANSORGE: There's no disclosure of an 03:38  
25 expert here. 03:38

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1           You were asking Dr. Psounis about           03:38  
2       communications with counsel. You're well aware of who   03:38  
3       on our team is named Tracy Gao.           03:38  
4           I take offense and I'm surprised by this           03:38  
5       little performance you're putting on for us right now.   03:38  
6           You understand these are communications with       03:38  
7       counsel. If you want to proceed and say that somehow   03:38  
8       it's proper for you to ask specifically what was       03:38  
9       pulled at one time, what documents were being       03:39  
10      provided, you can do so.           03:39  
11           We've made it very clear on the record. I       03:39  
12      believe Dr. Psounis has been more than forthcoming.   03:39  
13           Why don't you actually ask him some           03:39  
14      questions about his conclusions that he's offering in   03:39  
15      his report that he specifically rebut your plaintiffs'   03:39  
16      opinions?           03:39  
17           MR. MAO: Because Rule 702 allows me to       03:39  
18      analyze the data, the methodology, and the way the       03:39  
19      methodology was used applied against the data to       03:39  
20      arrive at the expert's conclusions. And I'm trying to   03:39  
21      understand with the methodology of how the data was   03:39  
22      pulled.           03:39  
23           Are you going to obstruct me from that,       03:39  
24      Mr. Ansorge?       03:39  
25           MR. ANSORGE: Why don't you actually ask       03:39

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1 Dr. Psounis about that. Why don't you ask him -- 03:39

2 MR. MAO: I have. 03:39

3 MR. ANSORGE: -- about the specific -- 03:39

4 MR. MAO: The -- 03:39

5 MR. ANSORGE: -- searches that he has 03:39

6 requested -- no. That is not what you've been doing, 03:39

7 Mr. Mao. 03:39

8 So why you don't actually ask Dr. Psounis 03:39

9 what the specific search was that he had asked for, 03:39

10 what specific data he had run, and whether he had 03:39

11 access to that same data. 03:39

12 And I think we can wrap this up much quicker 03:39

13 than you've been doing so far. 03:40

14 MR. MAO: Let's take a break. 03:40

15 Off the record, please. 03:40

16 THE VIDEOGRAPHER: Going off the record. 03:40

17 The time is 3:40 p.m. 03:40

18 (Break taken in proceedings.) 03:40

19 THE VIDEOGRAPHER: Back on the record. The 04:16

20 time is 4:16 p.m. 04:16

21 BY MR. MAO: 04:16

22 Q. Professor, during the break, did you speak 04:16

23 with Mr. Ansorge or any attorney regarding the 04:16

24 substance of the testimony here today? 04:16

25 A. No, I did not. 04:16



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1 MR. MAO: I'm just going to put on the 04:17  
2 record that Mr. Ansorge appears to be okay with us 04:17  
3 agreeing to stipulation where if I don't ask you all 04:17  
4 the questions regarding your interactions with this 04:17  
5 Tracy, I am not waiving my right or ability to take 04:17  
6 that up to the Court or ask additional questions 04:17  
7 regarding that should the Court grant that. 04:17

8 Are we in agreement, Mr. Ansorge? 04:17

9 MR. ANSORGE: I would put it like that. 04:17  
10 We're in agreement that you've preserved the issue 04:17  
11 that you're referring to. 04:17

12 I'm not sure what the second part was of 04:17  
13 what you just said, where you have the right to seek 04:17  
14 more questions or to have more discovery of Ms. Gao's 04:17  
15 role. That's the part that I wasn't -- I don't 04:17  
16 believe that's what John was describing earlier 04:17  
17 either. 04:17

18 Let me explain. My understanding was that 04:17  
19 plaintiffs would agree to cease this line of 04:17  
20 questioning. If we have agree they have sufficiently 04:17  
21 preserved the issue, that they can raise it with the 04:18  
22 Court, if they so choose. 04:18

23 And I'm pretty sure that's what John was 04:18  
24 saying. It sounds like you've converted it into 04:18  
25 something different. 04:18

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1 MR. MAO: No. No. 04:18

2 We would need to reserve our right to also 04:18

3 be able to ask questions if you happen to be wrong on 04:18

4 the existing questions. 04:18

5 MR. ANSORGE: Well, I think you're reserving 04:18

6 the right to raise the issue with the Court. If the 04:18

7 Court determines that additional questions are 04:18

8 appropriate, then it's going to be up to the Court. 04:18

9 I mean, at this point, I'm not going to 04:18

10 stipulate to further questions into Dr. Psounis' 04:18

11 communications with counsel being appropriate or you 04:18

12 having a right to those. I don't believe you ever had 04:18

13 a right to those. 04:18

14 So what we can stipulate to is that 04:18

15 plaintiffs have sufficiently asked questions about 04:18

16 Tracy Gao, counsel, to preserve the issue, if they 04:18

17 want to raise it with the Court. 04:18

18 And that's what John had asked us to 04:18

19 stipulate to, and that's what we're prepared to 04:19

20 stipulate to today. 04:19

21 MR. MAO: I disagree on your word of the use 04:19

22 "sufficient." 04:19

23 Can we at least remove the word "sufficient" 04:19

24 from your offer or stip? Why don't you put back in 04:19

25 what your offer and your version of the stipulation is 04:19

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1 without the word "sufficient"? 04:19

2 MR. ANSORGE: Plaintiffs have preserved the 04:19

3 issue so that they can raise it with the Court. And 04:19

4 they will cease the line of questioning in discovery 04:19

5 into Dr. Psounis' communications with counsel for 04:19

6 Google, in particular Tracy Gao. 04:19

7 MR. MAO: And I'm reserving my right to be 04:19

8 able to ask the Court to be able to get additional 04:19

9 questions on this topic, should the Court desire. 04:19

10 Do we agree on that? 04:19

11 MR. ANSORGE: That's fine. I don't think 04:19

12 you're waiving any rights to ask the Court for any 04:19

13 specific relation. 04:20

14 MR. MAO: Okay. 04:20

15 BY MR. MAO: 04:20

16 Q. Professor Psounis, with regard to 04:20

17 IP addresses and whether or not Google uses IP 04:20

18 addresses to join data, do you have any evidence that 04:20

19 Google does not use IP addresses to join data? 04:20

20 MR. ANSORGE: Objection. Form. Assumes 04:20

21 facts not in evidence. Calls for speculation. 04:20

22 THE WITNESS: First of all, when you say 04:21

23 data, I assume you are referring to the data at issue, 04:21

24 meaning whether Google is using IP addresses to join 04:21

25 unidentified data with identified data? 04:21

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1 BY MR. MAO: 04:21

2 Q. No. 04:21

3 Whether or not Google uses IP addresses to 04:21

4 join any data? 04:21

5 A. I have not been asked to opine on whether 04:21

6 Google uses IP addresses to join any data. I've been 04:21

7 asked to opine on whether Google uses IP addresses or 04:21

8 other things to join the data at issue. And in 04:21

9 particular to join unauthenticated data from private 04:21

10 browsing mode to authenticated data. 04:21

11 And my opinion is clear that this is 04:22

12 absolutely not the case. Google does not do this with 04:22

13 IP addresses or with other stuff. 04:22

14 Q. If a user signs into a third-party website 04:22

15 that uses either PPIDs or GA IDs, would that data be 04:22

16 considered authenticated or unauthenticated data? 04:22

17 A. I can answer, but I want to be as user 04:22

18 precise and stick to the data at issue. 04:22

19 So are you referring to a user that is in 04:22

20 private browsing mode and then signs into some Google 04:23

21 servers with a GAIA ID or in some first party with a 04:23

22 PPID? 04:23

23 Can you be more precise? 04:23

24 Q. If the user signs into a third-party web -- 04:23

25 third-party website that uses either PPIDs or GA IDs, 04:23

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1 Q. Okay. So let's stay with that for a moment. 04:25

2 Okay? 04:25

3 So let's say that user also at that time 04:25

4 opens up a normal mode browsing session. 04:25

5 Okay? 04:25

6 Goes to the same website, this time sign in 04:25

7 on the browser, okay, into the Google browser, okay, 04:26

8 using his Google ID. And then he logs into the same 04:26

9 third-party website. 04:26

10 Okay? 04:26

11 Is the data that you previously said was 04:26

12 unauthenticated, does that become authenticated data 04:26

13 or is that still unauthenticated data? 04:26

14 MR. ANSORGE: Objection. Form. Compound. 04:26

15 THE WITNESS: It is not clear to me what you 04:26

16 are describing with your second scenario. 04:26

17 So you said now a user is in a regular 04:26

18 browsing mode. 04:26

19 BY MR. MAO: 04:26

20 Q. Yes. 04:26

21 A. Then the user is signing into his Google ID; 04:26

22 right? 04:26

23 Q. Yes. 04:26

24 A. And then the user continues browsing. 04:26

25 Whether it goes into a third party or a first party or 04:26

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1	whatever, he already signed in with his Google ID;	04:26
2	correct?	04:27
3	Q. Right. And then he's going to the same	04:27
4	website as what he had visited in the private browsing	04:27
5	session.	04:27
6	A. Whether it goes to the same website or not,	04:27
7	since the user has signed in at Google, he's an	04:27
8	authenticated user.	04:27
9	Q. Right.	04:27
10	So what about that prior -- that other	04:27
11	window, okay, where he was signed out but signed into	04:27
12	the third-party website in private mode or in	04:27
13	incognito mode, okay, do you and I agree that between	04:27
14	the two different sessions is sharing the PPID?	04:27
15	MR. ANSORGE: Objection. Form.	04:27
16	THE WITNESS: So the PPID is set by the	04:27
17	publisher that is using the PPID for the certain user.	04:27
18	It is the same PPID. It is a PPID that -- it is an ID	04:28
19	that, per the rules, is encrypted and it does not	04:28
20	contain any PII by the rules that -- in the contracts,	04:28
21	if you wish, that Google has with the first-party	04:28
22	provider, New York Times, whatever we are discuss now.	04:28
23	So, yes, it is the same PPID, but always	04:28
24	thinking the -- the topic at issue here, this PPID, as	04:28
25	I said, is designed that Google has no idea to whom	04:28

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1       this PPID belongs to because it's encrypted and it       04:28  
2       doesn't have PII. And it --       04:28  
3             Q.    Okay. So --       04:28  
4             A.    -- bunch of times so --       04:28  
5             Q.    Okay. But let me take another step.       04:28  
6                    So with this second sign-in, okay, in normal       04:28  
7       mode, okay, you have now, we agree, the same PPID, is       04:29  
8       the prior sessions data authenticated or       04:29  
9       unauthenticated now? Do you know?       04:29  
10            A.    I do know.       04:29  
11                   MR. ANSORGE: Objection. Form.       04:29  
12                   THE WITNESS: So let me explain. The first       04:29  
13       sessions data, and to be precise, the private browsing       04:29  
14       session data are unauthenticated. The only -- I don't       04:29  
15       want to offer multiple different -- let me just stick       04:29  
16       to that.       04:29  
17                   They are unauthenticated data. So there is       04:29  
18       a cookie jar -- you can -- do you want me to -- I can       04:29  
19       just walk you also through my report, if you would       04:29  
20       like, with schematics and stuff to maybe help with my       04:29  
21       explanations from Exhibit 1.       04:30  
22       BY MR. MAO:       04:30  
23             Q.    No.       04:30  
24                   I just want to know, that first session in       04:30  
25       private mode, right, was that -- does that become       04:30

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1 authenticated or unauthenticated data? 04:30

2 I'm asking for Google purposes. It's not 04:30

3 meant to be a trick question. It's merely asking you 04:30

4 does it have to be authenticated or unauthenticated? 04:30

5 A. And I am trying to explain my answers so 04:30

6 that you understand, I don't want to say here is the 04:30

7 answer. 04:30

8 So the data of this first session, the 04:30

9 private browsing session, has a cookie jar associated 04:30

10 with it. In this cookie jar there is the PPID, right, 04:30

11 you refer to. And -- 04:30

12 Q. Mm-hm. 04:30

13 A. -- there is no GAIA ID in there. 04:30

14 Because the second session you are referring 04:30

15 to, which was originally on a regular browser -- 04:30

16 regular browsing mode, and then I signed in into my 04:30

17 gmail, for example, some Google account of mine, it 04:31

18 does have a GAIA. 04:31

19 So these are two separate sessions. They 04:31

20 have two separate cookie jars. The first cookie jar 04:31

21 that corresponds to the first session doesn't have any 04:31

22 GAIA, and it is unauthenticated. It is -- and it 04:31

23 stays unauthenticated. Because what happens to the 04:31

24 second session, and whether the data -- and whether 04:31

25 the second session of the data from the second session 04:31

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1 are not authenticated has nothing to do with what 04:31  
2 happens with the first session. This is separate 04:31  
3 sessions. 04:31

4 Q. Okay. Do you know whether or not Google 04:31  
5 uses that linkage, the linkage between the first 04:31  
6 session and the second session, that shares the common 04:31  
7 PPID? 04:31

8 A. I'm not going call it linkage. It is the 04:31  
9 same PPID. But because the PPID is encrypted, and 04:31  
10 because the data that we are discussing are in 04:32  
11 completely different logs, I do know that Google does 04:32  
12 not attempt to make any joining of the two different 04:32  
13 sets of data. 04:32

14 Q. That's not my question. Not my question. 04:32  
15 My question is: Does Google use that 04:32  
16 linkage, for example, for a conversion? 04:32

17 MR. ANSORGE: Objection. Form, and 04:32  
18 argumentative. 04:32

19 THE WITNESS: So continuing on previous 04:32  
20 thought we come to the conversion. I do know that 04:32  
21 Google does not use that linkage to join the data. 04:32

22 Now, the new -- the follow-up question, 04:32  
23 which is making more specifically -- this is great -- 04:33  
24 is whether Google is or is not using the data for 04:33  
25 conversion. 04:33

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1           So I will -- let me just go through the           04:33  
2       corresponding part of my report. I think speaking       04:33  
3       like that, it's a little bit --                       04:33

4       BY MR. MAO:

5           Q. I'm simply asking you whether or not Google       04:33  
6       would use that, okay, that relationship, whether you       04:33  
7       want to call it linkage or not, for a conversion?       04:33

8           A. And I'm going to answer this.               04:33

9           Q. It's not answered in your report.           04:33  
10          Are you going to point me to a part of your       04:33  
11       report that answers that?                       04:33

12          A. Yes. I'm going to point at -- I can answer       04:33  
13       now. But I'm trying to be --                   04:33

14          Q. Okay. And I want you to answer it. I don't       04:33  
15       need your report. If your report would help basically       04:33  
16       answer the question --                       04:33

17          A. Yes.                                       04:33

18          Q. -- directly --                           04:33

19          A. It will.                                  04:33

20          So let me go --                           04:33

21          Q. Why can't you just answer that right now. I       04:33  
22       mean, it's a yes-or-no question.               04:33

23          MR. ANSORGE: Objection. Argumentative.       04:33

24          THE WITNESS: I think that my answer will be       04:33  
25       more clear if I point to a specific section in my       04:34

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1 report. I can show you a picture. So if you can -- 04:34

2 BY MR. MAO: 04:34

3 Q. I don't need a picture to illustrate. 04:34

4 I know you do know that I don't have a 04:34

5 technical degree, but I can assure you that I 04:34

6 understand the technical aspects of this case. 04:34

7 Okay? 04:34

8 I'm simply asking you: Does Google use that 04:34

9 relationship for conversions? 04:34

10 And my next question is going to be how do 04:34

11 you know, whatever your answer is? 04:34

12 A. So I'm going to answer this. Give me one 04:34

13 second. And I'm going to just use my report for my 04:34

14 own -- you don't need it, it's great -- for my own 04:34

15 uses. I just think it grounds the discussion but -- 04:34

16 so let me answer in a manner that I think it's more 04:34

17 precise and more helpful. 04:34

18 So I have to find the corresponding part 04:34

19 now. Now this is opinion 4, I believe, about 04:34

20 conversions. 04:35

21 Okay. Here we are. 04:35

22 So when it comes to measuring conversions, I 04:35

23 do have a separate opinion and it's a short opinion, 04:35

24 and it starts at paragraph 86. 04:35

25 So as you can see in the case of, for 04:35

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1 example, paragraph 87, in order for Google to do this, 04:35  
2 meaning use this for conversions -- 04:35  
3 Q. Wait, wait, wait. 04:35  
4 You're saying mapping is the same thing as 04:35  
5 conversions? 04:35  
6 A. I'm sorry? 04:35  
7 Q. You're looking at 87; right? I'm asking 04:35  
8 about conversions. I'm just making sure. Because 87 04:35  
9 does not use the word "conversions." 04:35  
10 A. Okay. I am trying to explain to you. You 04:35  
11 said that you are not a technical expert. 04:35  
12 Q. Okay. Yeah, please. 04:36  
13 A. Again, I'm trying to explain to you, because 04:36  
14 the way conversions work is through mapping. 04:36  
15 So I'm building up so that you understand. 04:36  
16 You can see paragraph 88, if you will. The way 04:36  
17 conversions work is the following: 04:36  
18 You have two Biscotti IDs, and they are both 04:36  
19 connected to a GAIA ID, to the same GAIA ID. This is 04:36  
20 how the linkage takes place. This is how the linkage 04:36  
21 takes place. And there have been, I believe -- not I 04:36  
22 believe -- also testimony from Google engineers to 04:36  
23 that effect. 04:36  
24 So in the scenario you described to me, the 04:36  
25 first PPID, which is converted to a Biscotti ID, as 04:36

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1     you may or may not know -- it doesn't really matter     04:36  
2     but just to know that we are talking about this     04:36  
3     here -- is not mapped to a GAIA ID. This is no link     04:36  
4     between the first private browsing session Biscotti     04:36  
5     ID, PPID, that essentially tells the Biscotti ID that     04:37  
6     you discussed about, there is no mapping, there's no     04:37  
7     link between this and the GAIA ID.     04:37

8             And hence, it cannot be used in the context     04:37  
9     of this close device link that you see in this basic     04:37  
10    idea of this paragraph 88.     04:37

11            Q.    So you do not agree with me that in the     04:37  
12    GAIA log is also going to sit -- for the second     04:37  
13    session, you don't agree with me that it's going to     04:37  
14    include both a GAIA ID and a Biscotti -- a [REDACTED]     04:37  
15    [REDACTED]?     04:37

16            A.    No. This is not what I said.     04:37

17                    The second session has a GAIA ID and a PPID,     04:37  
18    and hence the second session PPID being linked to a     04:37  
19    GAIA ID can be used for conversions.     04:38

20                    There are other --     04:38

21            Q.    So we are saying the same thing. Wait,     04:38  
22    wait, wait. So that is my question.     04:38

23                    My question is, right, is that PPID and the     04:38  
24    transactions associated with that PPID, okay, after     04:38  
25    the sign in used for conversions?     04:38

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1           A.    So the encrypted and hashed PPID that has --           04:38  
2           is tending to a Biscotti ID of the second scenario           04:38  
3           that you are describing this, which is connected to a           04:38  
4           GAIA ID, could potentially be used for conversions,           04:38  
5           yes. It can. I can be used.           04:38

6           Q.    Right.           04:38

7           A.    It is the first PPID after it is -- and not           04:38  
8           just the PPID. It's essentially the actions of this           04:38  
9           private browsing user that's the key that they are not           04:39  
10          converted. They are not being used for conversions.           04:39

11                You see, I'm trying to go to the essence of           04:39  
12          the case here --           04:39

13          Q.    How are you -- how do you know that? How do           04:39  
14          you know that?           04:39

15          A.    I just explained how it's impossible with           04:39  
16          the way the system is implemented, based on the           04:39  
17          documents of course that I have reviewed, for this to           04:39  
18          occur.           04:39

19                Because the way it works is that the first           04:39  
20          PPID is not associated with a GAIA. So the way it           04:39  
21          works is the moment that there is a conversion, there           04:39  
22          is no GAIA to associate with the PPID of the first           04:39  
23          session. So the source code will not work.           04:39

24          Q.    But the PPID is the same PPID in both           04:39  
25          sessions.           04:39

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1 Do we disagree? 04:39

2 A. I do not disagree that a user has the same 04:39

3 PPID in as many sessions as the user is involved, 04:39

4 private or not private, with a certain publisher. It 04:40

5 is the same PPID. 04:40

6 But this PPID, as I said, even though it's 04:40

7 the same PPID, then it is encrypted. Then it is 04:40

8 hashed. And the two PPIDs now, I'm separating them 04:40

9 because they are now two different PPIDs. They may -- 04:40

10 because there is no linkage between them -- because 04:40

11 there is no linkage between them and the GAIA. There 04:40

12 is only one GAIA that is linked to a GAIA, not the 04:40

13 other GAIA. 04:40

14 That's why I was showing you this -- 04:40

15 Q. Have you considered whether or not there's 04:40

16 any Google documentation showing that Google uses 04:40

17 PPIDs that as the linkage and not just GAIA? 04:40

18 A. I have. 04:40

19 I'm sorry. Am I answering too fast? I 04:40

20 should wait a couple seconds. 04:40

21 Based on all the documents that I have 04:40

22 reviewed, including the testimony and the depositions 04:40

23 from the engineers, I didn't find anything that says 04:40

24 that Google would use private browsing -- it's 04:41

25 important -- private browsing session PPIDs for 04:41

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1 conversion. 04:41

2 Q. No, no. Different question. 04:41

3 My question to you is: Do you know whether 04:41

4 or not Google uses, okay, [REDACTED] for 04:41

5 conversions, even without a GAIA ID? 04:41

6 MR. ANSORGE: Objection. Form -- 04:41

7 BY MR. MAO: 04:41

8 Q. The same PPID -- yes. The same [REDACTED] 04:41

9 [REDACTED] across different sessions. 04:41

10 MR. ANSORGE: Objection. Form. 04:41

11 Argumentative. Asked and answered. 04:41

12 THE WITNESS: So as I -- okay. So I'm going 04:41

13 to go back to my report to help again. 04:41

14 So in paragraph 88, I say that conversions 04:41

15 are measured through mapping a GAIA ID to a 04:41

16 Biscotti ID. And for all practical purposes, PPID is 04:41

17 now converted to a Biscotti ID. 04:42

18 So if there is no such mapping between the 04:42

19 Biscotti ID -- the PPID converted to the Biscotti ID 04:42

20 in question with a GAIA ID, the conversion is not 04:42

21 going to take place. 04:42

22 So, again, it is not that conversion takes 04:42

23 place in the absence of a GAIA ID. It's the GAIA ID 04:42

24 that does this, not the PPID. 04:42

25 And I can even explain why the system is 04:42

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1 designed like that, but I don't want to go there 04:42

2 unless you want to. But I'm just saying. 04:42

3 BY MR. MAO:

4 Q. Now, setting aside conversions, could the 04:42

5 same PPIDs be used to identify users? 04:42

6 A. No. PPIDs, the way they have been designed 04:42

7 cannot be used to identify users. And there are 04:42

8 multiple steps that Google has taken, and I can again 04:42

9 use my -- 04:43

10 Q. So let me go back. 04:43

11 You and I agree that it was the same PPID, 04:43

12 right, in the scenario in both sessions? The provide 04:43

13 browsing session and the incognito session; right? 04:43

14 You're saying that the same PPID could not 04:43

15 be used to identify the user in the GAIA state? 04:43

16 MR. ANSORGE: Objection. Form. Compound. 04:43

17 And incomplete hypothetical. And calls for 04:43

18 speculation. 04:43

19 THE WITNESS: So my understanding of the 04:43

20 question was whether a PPID can be used to identify a 04:43

21 user by Google? 04:43

22 Is this the question or am I 04:43

23 misunderstanding the question? 04:43

24 BY MR. MAO: 04:43

25 Q. Yeah. 04:43

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1           Can we use the same PPID across those two           04:43  
2       sessions to identify users?           04:43  
3           A.   No, no.  It's -- can you -- you can repeat           04:43  
4       the question.  You're the one that comes up with           04:43  
5       questions so I don't feel --           04:43  
6       BY MR. MAO:           04:44  
7           Q.   Yeah, I know.  I'm literally trying.           04:44  
8           A.   Maybe I can help and say -- I don't know.           04:44  
9       You go for it.  Go for it.  Ask the question --           04:44  
10          Q.   Right.           04:44  
11                So you and I agree that it's the same PPID           04:44  
12       in those two sessions.           04:44  
13                Why can't I use that to identify users and           04:44  
14       they could retrieve and find out what their PPID is?           04:44  
15          A.   But that's exactly what you cannot do.  This           04:44  
16       is what I'm explaining.           04:44  
17                So -- so let me talk about PPIDs -- first           04:44  
18       let me explain what happens with a PPID, regardless of           04:44  
19       whether it's in a private browsing mode, not private           04:44  
20       browsing mode, because this is going to then help           04:44  
21       build up to the next more complicated question, which           04:44  
22       is but here are two sessions, a private browsing           04:44  
23       session and a regular session, and they -- the user           04:44  
24       has logged in through both sessions in New York Times           04:44  
25       so there is the same PPID.           04:44

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1           So let me first build up the first piece --           04:44

2           Q.    Yeah.  And my question is basically going to           04:44

3           be why can't I then just log in, right, to the same           04:44

4           website again, get my PPID in whatever form that is,           04:44

5           and use that to look up the different sessions?           04:45

6           That's my question.           04:45

7           A.    You cannot, and that's what I'm going to           04:45

8           explain.  So --           04:45

9           MR. ANSORGE:  Objection.  Vague.  Incomplete           04:45

10          hypothetical.           04:45

11          BY MR. MAO:           04:45

12          Q.    Go ahead, please.           04:45

13          A.    I'm going through my report to find the           04:45

14          corresponding paragraph because I think it's going to           04:45

15          help.           04:45

16          So in paragraph 59, I'm starting the           04:45

17          building block with how PPIDs are received and how           04:45

18          they are created, what is their property.           04:45

19          We can skip up -- I'm going to just cut to           04:45

20          the chase.  And, I mean, there are a lot of relevant           04:46

21          things here, but I don't want to -- you know, I want           04:46

22          to just go directly to your question.  Only minimum           04:46

23          stuff to help.           04:46

24          So let's go to paragraph 60.  I don't want           04:46

25          to have to go to the analogy what Mr. Hochman is doing           04:46

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1 in his own papers. That's fine. Let's just stick to 04:46  
2 the fact -- to the topic. 04:46

3 So a publisher will send a PPID to Google. 04:46  
4 They -- this PPID is not allowed to have any PII, and 04:46  
5 it is encrypted. And on top of that, Google, when it 04:46  
6 receives the PPID, it hashes the PPID further, just to 04:46  
7 be certain because some publishers may not do their 04:46  
8 job right. So it is trying to make sure this is not 04:47  
9 now in a form that I can go back into the original 04:47  
10 value of the PPID. 04:47

11 So the moment this thing has arrived now to 04:47  
12 Google, Google doesn't know the PPID value that the 04:47  
13 publisher has. It has an encrypted hashed PPID 04:47  
14 string, and Google cannot go back to the PPID string 04:47  
15 that the publisher has. 04:47

16 Q. So why can't I just send Google my PPID, how 04:47  
17 to hash it with the same hash and match that up? Why 04:47  
18 can't a user do that? 04:47

19 A. The user doesn't control his or her PPID. 04:47  
20 It's the publisher that controls it. 04:48

21 And I don't see how this is relevant here 04:48  
22 because the point is whether Google. 04:48

23 Q. If the publisher doesn't rotate their PPIDs, 04:48  
24 I can just log in and get my PPID and submit that to 04:48  
25 Google. 04:48

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1                   Isn't that correct?                   04:48

2           A.    Not really.                   04:48

3                   MR. ANSORGE:  Objection --                   04:48

4   BY MR. MAO:                   04:48

5           Q.    I'm sorry.  Did you say "Not really"?

6           A.    Yes.  I'm saying no for the following                   04:48

7   reason:  Because the PPID that the publisher creates                   04:48

8   for you is not the -- is not what you see when you log                   04:48

9   in, in the sense that it has to stripe out things that                   04:48

10   they are considered PP -- PIIs, and then it is hashing                   04:48

11   it.  So...

12           Q.    So what, Professor?  I'm giving the same                   04:48

13   PPID that Google has collected without my assistance.                   04:48

14   And now with my assistance, I'm giving the same PPID.                   04:48

15                   And are they not going through the same hash                   04:48

16   algorithm?                   04:49

17           A.    So you are now talking about a hypothetical                   04:49

18   where you are at -- a person that is a technical                   04:49

19   person and goes and extracts.  I'm asking what do                   04:49

20   you -- in your mind now, goes and extracts the PPID                   04:49

21   field that is sitting there in your browser; right?                   04:49

22           Q.    Yes.  Yes.                   04:49

23           A.    And then you sent this to Google on your                   04:49

24   own.  You sent an mail to Google and say, "Here is my                   04:49

25   PPID for this publisher"?                   04:49

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1 Q. Yes. 04:49

2 A. Is this what you are describing? 04:49

3 Q. Yes. 04:49

4 A. So -- 04:49

5 Q. Can I locate my PPIDs in Biscotti and also 04:49

6 P logs using that method once I have extracted that ID 04:49

7 and sent it to Google to go through the hash? 04:49

8 MR. ANSORGE: Objection. Form. Compound 04:49

9 and incomplete hypothetical. 04:49

10 THE WITNESS: So I will answer as follows: 04:50

11 First of all, as a first matter here, 04:50

12 obviously this has nothing to do with whether Google 04:50

13 is or is not using PPIDs to join things or convert 04:50

14 things without the user knowing. You are providing 04:50

15 them your PPID. 04:50

16 Second, if the hash function at Google, not 04:50

17 at -- not your publishers hash function, but Google's 04:50

18 hash function, is rotating and changing, which is the 04:50

19 case, then, no, it's impossible for Google to tie 04:50

20 this to another PPID of yours because it has gone 04:50

21 potentially through a different hash function. So it 04:50

22 goes marked into a different value. 04:51

23 BY MR. MAO:

24 Q. But let's assume that Google was required by 04:51

25 a preservation order, for example -- 04:51

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1 web browser on memory where it keeps cookies. I 04:52  
2 extract the hash PPID that the first-party provider 04:53  
3 sends to me. 04:53  
4 Then I sent these PPID to Google myself. 04:53  
5 And I do this again in a week. 04:53  
6 In the meantime, during this one week, 04:53  
7 somebody is forcing Google to doesn't -- don't touch 04:53  
8 the hash such that if you gave the same input, you get 04:53  
9 the same output. 04:53  
10 And the question is whether the output of 04:53  
11 that hash function would be the same during this 04:53  
12 process? That's basically what you're asking? 04:53  
13 Q. Yes. 04:53  
14 A. So, I have -- I mean, again, I have not -- I 04:53  
15 don't know if there are -- there could be other 04:53  
16 nuances that I am not considering right now because 04:53  
17 this is not a scenario for which I have been asked to 04:54  
18 form an opinion about. 04:54  
19 But if all the things have said are exactly 04:54  
20 like that, then I'm trying to figure out if there is 04:54  
21 something I might be missing. 04:54  
22 You see, in this hypothetical, all the 04:54  
23 fly -- I don't know if I should -- it's a complicated 04:54  
24 system, Mr. Mao. You're asking me on the fly to come 04:54  
25 up with a -- 04:54

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1 Q. I've already taken all of your assumptions 04:54  
2 that would result in the same PPID, and I can look at 04:54  
3 the transactions of the same PPID data; right? 04:54  
4 A. I'm trying to think if there are any more 04:55  
5 assumption I have to make for my answer to be precise. 04:55  
6 Because there are a lot of nuts and bolts on the 04:55  
7 system. 04:55  
8 Let me -- let me look into one more thing in 04:55  
9 my report that might be helpful to see if there are 04:55  
10 more assumptions that I may have to make, if I can 04:55  
11 even tell you what it is, so here... 04:55  
12 So the publisher also is not going to change 04:55  
13 the PPID. That's another assumption. How do you know 04:55  
14 that the publisher didn't change -- 04:55  
15 Q. We already -- we already eliminated that 04:55  
16 assumption. Remember? 04:55  
17 A. Okay. 04:55  
18 Q. The publisher does not change the PPID, 04:55  
19 yeah. 04:55  
20 A. Okay. 04:55  
21 Q. I've given you every trick you can pull. 04:55  
22 A. I'm not -- I'm not trying to -- 04:56  
23 MR. ANSORGE: Objection. Argumentative. 04:56  
24 MR. MAO: It's a joke. It's almost 5:00. 04:56  
25 MR. ANSORGE: Objection. Assumes facts not 04:56

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1 in evidence. 04:56

2 THE WITNESS: Another thing I do mention in 04:56

3 my report because it is possible is that different 04:56

4 publishers may provide the same hash value. 04:56

5 BY MR. MAO: 04:56

6 Q. Assume that you know the property, the 04:56

7 property number. 04:56

8 Okay? 04:56

9 Under -- for Google. Every Google Analytics 04:56

10 and Google Ads customer has their own number. Assume 04:56

11 that you know that number as well. They're going to 04:56

12 be unique. I can assure you. 04:56

13 A. I'm not sure how this should solve the 04:56

14 problem. If I have two publishers that they send me 04:56

15 the same hashed value; right? 04:56

16 Q. Different Google customer IDs. 04:56

17 A. Right. 04:56

18 But then what is going to happen in the end 04:56

19 is you may get a false positive because the PPID from 04:56

20 the other publisher is going to nevertheless be the 04:57

21 same. It's going to go through the hash -- the same 04:57

22 hash function. So when Google presents -- 04:57

23 Q. Right. It's going to have a different 04:57

24 customer ID. 04:57

25 A. Okay. 04:57

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1 Q. I'm asking about same customer ID because 04:57  
2 it's the same publisher with the same hash algorithm. 04:57  
3 A. No, no. I'm talking about -- 04:57  
4 Q. -- and PPID. 04:57  
5 That's what? 04:57  
6 A. I'm talking about a different publisher. 04:57  
7 Q. That's not my hypothetical. You've changed 04:57  
8 my hypothetical. 04:57  
9 A. No, I'm not. I'm saying there could be a 04:57  
10 different publisher that provides the same hash value 04:57  
11 for the same user. 04:57  
12 If you go to paragraph 135 where I'm talking 04:57  
13 about -- 04:57  
14 Q. Right. And I'm saying that you have to look 04:57  
15 it up with the same customer ID. Same customer ID, 04:57  
16 same PPID. 04:57  
17 A. So now you need to also involve -- how are 04:57  
18 you going to do this? You need to also involve the 04:57  
19 publishers and go and ask all possible publishers what 04:57  
20 customer IDs they have -- 04:58  
21 Q. Do you know whether or not the customer 04:58  
22 number is in the URL? 04:58  
23 MR. ANSORGE: Objection. Vague. 04:58  
24 THE WITNESS: We are in this hypothetical, 04:58  
25 Mr. Mao. Maybe the customer IDs are the same in both 04:58

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1 publishers. How do I know? Where -- 04:58

2 BY MR. MAO:

3 Q. Yeah. How do you know? Did you inspect the 04:58

4 systems? 04:58

5 A. You are asking me? 04:58

6 Q. Yeah, the expert. 04:58

7 MR. ANSORGE: Asked and answered many times 04:58

8 over now, Mr. Mao. 04:58

9 THE WITNESS: So I'm not ready to agree that 04:58

10 even in this hypothetical where the publisher we are 04:58

11 discussing is not changing my PPID. It's the same. I 04:58

12 am voluntarily sending it after it's been hashed by 04:58

13 the publisher with the same hash function to Google. 04:58

14 Google is forced to not utilize its usual 04:58

15 hash function and has to keep the hash function stable 04:58

16 and then maps it into a PPID, let's call it PPID 1. 04:59

17 And then a week after, I do the same thing 04:59

18 with the same publisher. Now this is going to be 04:59

19 PPID 2. My point is there could be another PPID 3 04:59

20 from a different publishers that ends up having the 04:59

21 same hash value. 04:59

22 You say maybe it's a different customer ID 04:59

23 on the two publishers for this user, but they could 04:59

24 also be the same. We are in a hypothetical land. 04:59

25 So my things, there are going to be multiple 04:59

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1 PPIDs. Perhaps there will be the same, yet they are 04:59  
2 not going to fall into the case where all of this 04:59  
3 correspond to the same publisher. That's all I'm 04:59  
4 saying. 04:59

5 BY MR. MAO:

6 Q. Professor Psounis, have you asked -- have 04:59  
7 you asked Google for a full list of all the search 04:59  
8 tools available to search the logs and data sources at 04:59  
9 issue in the case? 04:59

10 A. No, I have not. 04:59

11 MR. MAO: Mr. Ansorge, I pass the baton to 05:00  
12 you. 05:00

13 MR. ANSORGE: Great. I'd like to take a 05:00  
14 10-minute break. We can go off the record. 05:00

15 THE VIDEOGRAPHER: Going off the record. 05:00  
16 The time is 5:00 p.m. 05:00

17 (Break taken in proceedings.) 05:00

18 THE VIDEOGRAPHER: Back on the record. The 05:12  
19 time is 5:12 p.m. 05:12

20 EXAMINATION BY MR. ANSORGE 05:12

21 BY MR. ANSORGE: 05:12

22 Q. Dr. Psounis, do you recall Mr. Mao asking 05:12  
23 you a number of questions about Exhibit 9 today? 05:12

24 A. Let me open up Exhibit 9. I mean, I do 05:13  
25 recall discussing Exhibit 9, but just, you know, keep 05:13

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1       it precise. 05:13

2           Q.    Yes.   Please do. 05:13

3           A.    Yes.   Yes. 05:13

4           Q.    If you look at the first page of Exhibit 9, 05:13

5       do you see the sentence at the bottom, the last 05:13

6       sentence that says: 05:13

7                    "For customers that use the 05:13

8       Google Analytics user ID, the user ID and 05:13

9       join beacons may be present in the 05:13

10       following logs." 05:13

11                  Did I read that out correctly? 05:13

12          A.    Yes. 05:13

13          Q.    Is the Google Analytics user ID the same as 05:13

14       the GAIA ID? 05:13

15          A.    No. 05:13

16          Q.    Dr. Psounis, do you recall Mr. Mao asked you 05:13

17       a series of questions about Exhibit 2, which was an 05:13

18       order by Magistrate Judge Van Keulen? 05:14

19                  Can you please pull that up? 05:14

20          A.    I opened up Exhibit 2. It's on my .pdf 05:14

21       here. 05:14

22          Q.    Please turn to number page 7 in 05:14

23       Exhibit No. 2, and this is 7 at the bottom, the 05:14

24       paginated No. 7. Let me know once you're there. 05:14

25          A.    I am there. 05:14

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1 Q. You see there's a numbered list and at the 05:14  
2 top, the first number is "2"? If you look at the last 05:14  
3 sentence, No. "2"? 05:14

4 A. Maybe I'm looking at the wrong part. 05:14  
5 Number -- page No. 7 -- ah, 7 of the .pdf is -- 05:14  
6 because there are multiple No. 7. Okay. 05:14

7 I'm sorry. There are -- now I'm looking at 05:14  
8 page No. 7, which is 8 out of 58 on the .pdf. I was 05:15  
9 looking at another page No. 7 which was page 19 out of 05:15  
10 58, something like that. 05:15

11 Q. And is that the page with the judge's 05:15  
12 signature at the bottom where it says 05:15  
13 "Susan van Keulen, United States Magistrate Judge"? 05:15

14 A. Yes. 05:15

15 Q. So I'd like to direct you attention to the 05:15  
16 top of the page. There's a numbered list and there's 05:15  
17 No. 2. You see the last sentence in No. 2, it says: 05:15

18 "Google is not excluded from arguing 05:15  
19 against the reliability of the three 05:15  
20 incognito-detection bits in identifying 05:15  
21 class members." 05:15

22 Do you see that? 05:15

23 A. Yes. 05:15

24 Q. In your opinion No. 8, are you describing 05:15  
25 how reliable the maybeChromeincognito bit is for 05:15

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1 identifying class members? 05:15

2 A. Yes. That's the essence of my opinion 8. 05:15

3 And I'm going to just read here. 05:16

4 Yes. I'm saying that Mr. Hochman's opinion 05:16

5 is incorrect, and I'm offering a bunch of false 05:16

6 positive cases and talking about the unreliability of 05:16

7 the incognito. 05:16

8 Q. And, Dr. Psounis, is your opinion 8 about 05:16

9 the maybeChromeincognito bit based on what logs the 05:16

10 bit is written to? 05:16

11 A. No. As the false positive cases, for 05:16

12 example, have -- are not related to the logs. 05:16

13 Q. And does opinion 8 of your report rely on 05:16

14 any specific log? 05:16

15 A. No. 05:16

16 Q. Did you rely on the fields provided to the 05:16

17 special master in forming any of the opinions in your 05:16

18 report? 05:17

19 A. Can you please repeat this question? 05:17

20 Q. Yes. 05:17

21 Did you rely on any fields provided to the 05:17

22 special master in forming any of the opinions in your 05:17

23 report? 05:17

24 A. No, I did not. 05:17

25 Q. Do you recall Mr. Mao asked you a series of 05:17

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1 questions about Exhibit 5, which was a Sramek 05:17  
2 declaration? 05:17  
3 Could you please pull that up? 05:17  
4 A. I'm looking at Exhibit 5. 05:17  
5 Q. Please turn to paragraph 10. It's on 05:17  
6 page 2. Let me know once you're there. 05:17  
7 A. What page you said? 05:17  
8 Q. It's page 2, numbered page 2 at the bottom. 05:17  
9 It's paragraph 10. 05:18  
10 A. Ah, yes, I'm there. 05:18  
11 Q. Now, you see there's a block quote, and 05:18  
12 under it there's a sentence. It says: 05:18  
13 "I have confirmed with the Google 05:18  
14 engineer that wrote the code for, and 05:18  
15 implemented" -- and there's redacted -- 05:18  
16 "log, that all of the joins in this log 05:18  
17 are either from authenticated to 05:18  
18 authenticated log sources, or from 05:18  
19 unauthenticated to unauthenticated log 05:18  
20 sources, but none are from unauthenticated 05:18  
21 to authenticated log sources or vice 05:18  
22 versa." 05:18  
23 Did I read that correctly? 05:18  
24 A. Yes. 05:18  
25 Q. Does this statement in any way contradict or 05:18

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1 Q. Just based on this document before you, 05:20  
2 would you expect this to indicate that something has 05:20  
3 been implemented or does it look to you like this is 05:20  
4 indicating that something is being proposed and has 05:20  
5 yet to be approved? 05:20

6 MR. MAO: Objection. Leading. Calls for 05:20  
7 speculation. 05:20

8 Go ahead. 05:20

9 THE WITNESS: This is clearly something that 05:20  
10 it's at the proposed status, pending approval from 05:20  
11 approver with user name "alihanlivdumlu." 05:20

12 BY MR. ANSORGE: 05:20

13 Q. Dr. Psounis, could you please turn to the 05:20  
14 page ending with the Bates designation 797, and let me 05:20  
15 know once you're there? 05:21

16 A. I am there. 05:21

17 Q. Second page of the document. 05:21

18 You see there's a comment on the side that 05:21  
19 says "Commented (5)." It states that: 05:21

20 "Agree that extension provides more 05:21  
21 flexibility in the future, especially 05:21  
22 'incognito mode' is a concept across 05:21  
23 app-level (example, Search, YouTube, GMM?) 05:21  
24 and platform-level (example, Chrome and 05:21  
25 Android.) 05:21

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1 Do you see that? 05:21

2 A. I do. 05:21

3 Q. Dr. Psounis, what's your opinion about the 05:21

4 maybeChromeincognito bit, which is opinion 8 of your 05:21

5 expert report, related to the app level or the 05:21

6 platform level? 05:21

7 A. It is related to what is being referred to 05:21

8 here as platform level. It has to do with browsers, 05:21

9 Chrome, example. 05:21

10 Q. Now, Dr. Psounis, how many opinions are in 05:21

11 your expert report? 05:21

12 A. I remember that by heart; 13. 05:22

13 Q. And today Mr. Mao asked you about 05:22

14 opinions 1, 2, and 8. 05:22

15 Do you recall that? 05:22

16 A. Do you mind if I go through my executive 05:22

17 summary? 05:22

18 Actually, no. I'm going to go through the 05:22

19 table of contents, just to make sure that I'm 05:22

20 answering precisely. 05:22

21 We touched pieces related to my opinion 1, 05:22

22 2, and 8. I didn't end up giving justification for 05:22

23 either of these three opinions and do them full 05:23

24 justice. But, yes, he did ask me about 1, 2, and 8. 05:23

25 There was a lot of back and forth. 05:23

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1 Q. And did Dr. -- did Mr. Mao ask you about any 05:23  
2 other opinions in your expert report today? 05:23  
3 A. Let me read the rest of that. 05:23  
4 I don't remember Mr. Mao raising any other 05:23  
5 opinion number to me. 05:23  
6 I can for sure say that there was no 05:23  
7 discussion about entropy, on fingerprinting, 05:23  
8 identifying class members, either class 1 or class 2. 05:23  
9 No discussion about certain devices or certain 05:23  
10 accounts. No discussion about the three opinions 05:24  
11 related to Mr. Schneier. 05:24  
12 I brought up -- at some point Mr. Mao talked 05:24  
13 about joining stuff, but he never asked me about my 05:24  
14 opinion 3. I remember the discussion with the joint 05:24  
15 beacon that was a controversy. 05:24  
16 Q. Dr. Psounis, do you recall Mr. Mao asking 05:24  
17 you a series of questions about PPID? 05:24  
18 A. Yes. 05:24  
19 Q. Do you recall he asked you about a scenario 05:24  
20 in particular where a user pulls a PPID from their 05:24  
21 browser and provides that to Google? Do you recall 05:24  
22 that? 05:24  
23 A. Can you repeat again the question? I'm 05:25  
24 getting a little bit jet-lagged. 05:25  
25 Q. Sure. It's been a long day and thank you 05:25

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1 for your patience. 05:25

2 Do you recall he asked you about a scenario 05:25

3 in which a user would pull a PPID and then provide 05:25

4 that to Google? 05:25

5 A. Yes. 05:25

6 Q. You recall discussing that in detail with 05:25

7 Mr. Mao earlier today? 05:25

8 A. Yes. 05:25

9 Q. Now, if Google would look up data associated 05:25

10 with a specific PPID, how many publishers would that 05:25

11 data be associated with? 05:25

12 A. Well, obviously only the publisher that has 05:25

13 issued this PPID. I think in our example it was 05:25

14 New York Times, if I recall correctly. 05:25

15 Q. So unless a user had signed in to the 05:25

16 New York Times in that scenario, there wouldn't be any 05:25

17 data associated with a specific PPID of the 05:25

18 New York Times. 05:25

19 Is that correct? 05:25

20 A. Correct. 05:26

21 Q. Dr. Psounis, do you recall at various points 05:26

22 today you and Mr. Mao were discussing your IP and user 05:26

23 agent analysis? 05:26

24 Do you recall that? 05:26

25 A. I'm not sure. 05:26

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1 MR. MAO: Objection. Beyond the scope of 05:26  
2 the redirect. I actually -- of a cross. I actually 05:26  
3 believe I did not ask him that. 05:26  
4 BY MR. ANSORGE: 05:26  
5 Q. Well, Dr. Psounis, do you recall testifying 05:26  
6 about your appendices in which you describe IP address 05:26  
7 and user agent analysis today? 05:26  
8 A. Yes. We did discuss about that when I was 05:26  
9 explaining how many IP addresses had a common GAIA 05:26  
10 associated with them, how many UAs had a common GAIA 05:26  
11 associated with them, yes. 05:26  
12 Q. And is that analysis described in one of 05:27  
13 your appendices, Dr. Psounis? 05:27  
14 A. It is an appendix. Appendix F. 05:27  
15 And as a matter of fact, I remember -- I 05:27  
16 recall, but I got interrupted because of the legal 05:27  
17 stuff you guys were dealing with, when I was going 05:27  
18 very, very carefully through my document and I was 05:27  
19 trying to point out to Mr. Mao every single place. 05:27  
20 That was the next thing I was going say. 05:27  
21 After the two paragraphs that I -- I was going to say 05:27  
22 in appendix F it has the date. 05:27  
23 Go ahead. 05:27  
24 Q. And can you describe the analysis you 05:27  
25 conducted in appendix F? 05:27



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1           A.    Of course I can.   So, again, so the idea of           05:27  
2   the analysis related to IP addresses and user agents           05:27  
3   is the following:           05:27

4                There are some data that they have been           05:27  
5   provided by the plaintiffs.   And this data contained a           05:28  
6   lot of records, hundreds of thousands of records -- or           05:28  
7   144957, now that I have the appendix in front of me.           05:28

8                And what I was interested to see with           05:28  
9   respect to IP addresses first was whether to there are           05:28  
10   IP addresses that they are served with multiple           05:28  
11   plaintiffs.   And I could do that because the           05:28  
12   plaintiffs gave their GAIA IDs.           05:28

13               And there were actually three IP addresses           05:28  
14   and they are listed in paragraph 2 of the appendix,           05:28  
15   the IP addresses, that they are served -- they are           05:28  
16   served by multiple plaintiffs.           05:28

17               And then -- sorry.           05:28

18               Through a lookup, too, we -- as you can see           05:29  
19   in paragraphs 3, 4, and 5, it was apparent to me that           05:29  
20   these three IP addresses, that they were shared by           05:29  
21   multiple plaintiffs, were actually issued by, I think,           05:29  
22   by -- and this is what this paragraph is showing.           05:29

23               Then next I was also interested to ask the           05:29  
24   same question myself about the data that the           05:29  
25   plaintiffs provided, about UAs, user agents.           05:29

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1           So we did find -- if you can see the data -- 05:29  
2     in paragraph 6, you can see that after the analysis of 05:29  
3     the data, there were a thousand 257 distinct user 05:30  
4     agents and out of those a thousand 257, 73 got 05:30  
5     responded to multiple plaintiff -- multiple different 05:30  
6     plaintiff GAIA IDs. So essentially the plaintiffs 05:30  
7     were -- multiple plaintiffs were having the same UA. 05:30  
8           For example, the first one, actually four 05:30  
9     action Brown appears twice because he had two. Three, 05:30  
10    but the second one, four, there's Brown, Byatt and 05:30  
11    Castillo -- 05:30  
12           THE COURT REPORTER: Okay. I'm sorry. 05:30  
13    You're a little bit mumbling your words together. I'm 05:30  
14    not getting exactly what you're saying. 05:30  
15           Can you slow down and enunciate a little 05:30  
16    bit, please? Thank you. 05:30  
17           THE WITNESS: Okay. Sorry. 05:30  
18           So what I am saying is that I conducted this 05:30  
19    experiment, this -- because I wanted to see whether 05:30  
20    and how many of the distinct UAs that can be found in 05:31  
21    the data served by the plaintiffs and served among 05:31  
22    multiple plaintiffs. Because this is directly 05:31  
23    relevant to my opinion about the fact that UAs and IPs 05:31  
24    are not unique or static. And, hence, they are 05:31  
25    unreliable to do any kind of fingerprinting based on 05:31

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1       that. 05:31

2               So I'm just pointing out to the fact that on 05:31

3       this table here that has "User Agent" column on the 05:31

4       left and "Corresponding GAIA IDs" on the right, there 05:31

5       are UAs that actually are set by almost all the 05:31

6       plaintiffs; for example, by four of them in this case. 05:31

7               This table is long because it's listing all 05:31

8       these UAs. 05:31

9       BY MR. ANSORGE: 05:31

10       Q. Dr. Psounis, what was your assignment in 05:32

11       this case? 05:32

12       MR. MAO: Objection. Document speaks for 05:32

13       itself. But okay, go ahead. 05:32

14       THE WITNESS: My assignment is described in 05:32

15       my report. Let me, just to be -- 05:32

16       MR. MAO: Please, we didn't ask you to read 05:32

17       it into the record. 05:32

18       THE WITNESS: No. I'm not going to read it. 05:32

19       I'm sorry. I'm not going to read the whole thing. 05:32

20       Again -- 05:32

21       MR. MAO: Okay. It is beyond -- a lot of 05:32

22       this stuff is beyond the scope of the 05:32

23       cross-examination. I'm kind of allowing it, Joey, 05:32

24       but, you know, I mean, come on. 05:32

25       THE WITNESS: I don't want to get into the 05:32

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1 legal stuff between the two of you. All I'm saying -- 05:32

2 MR. MAO: Sure. Sure. 05:32

3 THE WITNESS: -- I'm trying to be very 05:32

4 accurate and precise in all the questions you have 05:32

5 asked me. I'm trying to do the same thing with 05:32

6 Mr. Ansorge. To me there is no difference. So I'm 05:32

7 just doing the same methodology. 05:32

8 BY MR. ANSORGE: 05:32

9 Q. And maybe we can speed it up for everybody. 05:32

10 Dr. Psounis, was it your assignment to rebut 05:32

11 specific opinions by Mr. Hochman and Mr. Schneier? 05:32

12 A. My assignment was to rebut -- to rebut 05:33

13 specific opinions in Mr. Hochman's report that they 05:33

14 are listed in the section called "Assignment," 05:33

15 paragraph 31. And also to rebut specific statements, 05:33

16 to be precise, in Schneier's report, and I also list 05:33

17 three statements which I have rebutted. 05:33

18 Q. And based on the documents that Mr. Mao 05:33

19 showed you today, do you want to revise any of the 05:33

20 opinions in your rebuttal report? 05:33

21 A. No. 05:33

22 Q. Dr. Psounis, are there any typos or errors 05:33

23 that you would like to remedy in your report? 05:33

24 Is there any specific number that you 05:33

25 believe should be changed after you have reviewed the 05:33

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1 report in more detail in your preparation? 05:34

2 A. There are a few typos. A couple of them are 05:34

3 just words. One is actually a number, and I'm a 05:34

4 numbers guy, so I don't like to leave numbers that are 05:34

5 off. So if I have the opportunity, yeah, sure. 05:34

6 Q. Yeah. What is the number that you would 05:34

7 like to correct on the record? 05:34

8 A. So let me go to this so -- 05:34

9 MR. MAO: Can I stipulate that you will 05:34

10 allow him to just correct after the depo any 05:34

11 typographical errors? 05:34

12 MR. ANSORGE: I think that will take less 05:34

13 time than what he's about to do. 05:34

14 MR. MAO: Yeah. 05:34

15 MR. ANSORGE: As in what he's about to do 05:34

16 will take less time than -- 05:34

17 MR. MAO: Okay. All right. 05:34

18 THE WITNESS: So in the appendix E about 05:34

19 "Entropy, Entropy Bits and Fingerprinting: 05:34

20 Formal Exposition," what I tried really hard to 05:34

21 explain, what's going on with entropy and entropy bits 05:34

22 and its relationship to fingerprinting. To a lot of 05:34

23 people at Google, other experts, et cetera, because 05:35

24 I'm not sure they do, I gave a number of numerical 05:35

25 examples, simpler -- simple, small scale examples to 05:35

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1 kind of convey the bunch of concepts that apparently 05:35  
2 had -- or had -- what people don't quite grasp. 05:35  
3 So in one of my numerical examples I do have 05:35  
4 a numerical mistake -- numerical mistake -- not 05:35  
5 mistake. I'm sorry. A typo. So -- and I'm trying to 05:35  
6 find it. 05:35  
7 Okay. Here we go. Page 1, 69, paragraph 05:35  
8 37. So five lines behind the end of the -- five lines 05:35  
9 from the bottom of the page, there is a -- there are 05:36  
10 some brackets and four numbers in there. Bracket 31 05:36  
11 over 64 comma zero comma 1 over 64 comma 1 over 64 05:36  
12 bracket -- 05:36  
13 THE COURT REPORTER: Excuse me. Pardon me. 05:36  
14 You're going to have to start over. 05:36  
15 THE WITNESS: I'm sorry. 05:36  
16 Bracket 31 over 64 comma zero comma 1 over 05:36  
17 64 comma 1 over 64 bracket closed. 05:36  
18 The number 31 over 64 should have been 31 05:36  
19 over 32 or 62 over 64. 05:36  
20 And then on the fourth line of the bottom of 05:36  
21 the page, there is a similar bracket with four 05:36  
22 numbers. The second number in this bracket now, at 05:36  
23 the very beginning actually of the line, is again 05:36  
24 31 over 64 but it should have been similarly 05:36  
25 31 over 32 or 62 over 64. 05:36

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1 MR. ANSORGE: No further questions at this 05:36  
2 time. We reserve the right for further questions 05:37  
3 depending on Mr. Mao's redirect. 05:37  
4 MR. MAO: I have no questions, although I'm 05:37  
5 slightly tempted at just having him read his whole 05:37  
6 report into the record. I'm kidding. 05:37  
7 MR. ANSORGE: That would have been a better 05:37  
8 use of the past seven hours, Mr. Mao. 05:37  
9 MR. MAO: I don't know about that. 05:37  
10 Dr. Psounis -- Professor, it was an honor. 05:37  
11 I'm sorry that, you know, this is adversarial. 05:37  
12 Thank you, Mr. Ansorge. 05:37  
13 MR. ANSORGE: Thank you, Mr. Mao. 05:37  
14 With that, we can go off the record. 05:37  
15 THE VIDEOGRAPHER: This concludes today's 05:37  
16 deposition of Dr. Konstantinos Psounis. We are off 05:37  
17 the record at 5:37 p.m. The number of units -- media 05:37  
18 units is seven and will be retained by Veritext. 05:37  
19 Thank you. 05:37  
20 THE COURT REPORTER: Thanks, Counsel. 05:39  
21 Before we go, are we doing the rough today 05:39  
22 and then the final by Monday or Wednesday? 05:39  
23 MR. MAO: Rough today, yes. Rough today, 05:39  
24 please. 05:39  
25 THE COURT REPORTER: And then final by 05:39

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1 Monday or Wednesday? 05:39  
2 MR. MCGEE: Monday would be great. 05:39  
3 MR. MAO: Monday, if you can. 05:39  
4 THE COURT REPORTER: Final by Monday. Okay. 05:39  
5 MR. MCGEE: Thanks always, Katy. 05:39

6 (Whereupon, the deposition adjourned at 5:39 p.m.)

7 ---o0o---

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## REPORTER'S CERTIFICATE

---o0o---

STATE OF CALIFORNIA     )  
                                  ) ss.  
COUNTY OF YOLO         )

I, KATY E. SCHMIDT, a Certified Shorthand  
Reporter in and for the State of California, duly  
commissioned and a disinterested person, certify:

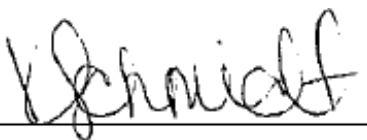
That the foregoing deposition was taken before  
me at the time and place herein set forth;

That KONSTANTINOS PSOUNIS, Ph.D., the deponent  
herein, was put on oath by me;

That the testimony of the witness and all  
objections made at the time of the examination were  
recorded stenographically by me to the best of my  
ability and thereafter transcribed into typewriting;

That the foregoing deposition is a record of  
the testimony of the examination.

IN WITNESS WHEREOF, I subscribe my name on this  
22nd day of August, 2022.



Katy E. Schmidt, RPR, RMR, CRR, CSR 13096  
Certified Shorthand Reporter  
in and for the  
County of Sacramento,  
State of California  
Ref. No. 5344586 KES

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MARK MAO, Esq.

mmao@bsfllp.com

August 22, 2022

RE: BROWN vs. GOOGLE LLC

AUGUST 19, 2022, KONSTANTINOS PSOUNIS, Ph.D., JOB NO. 5344586

The above-referenced transcript has been completed by Veritext Legal Solutions and review of the transcript is being handled as follows:

\_\_\_ Per CA State Code (CCP 2025.520 (a)-(e)) - Contact Veritext to schedule a time to review the original transcript at a Veritext office.

\_\_\_ Per CA State Code (CCP 2025.520 (a)-(e)) - Locked .PDF Transcript - The witness should review the transcript and make any necessary corrections on the errata pages included below, notating the page and line number of the corrections. The witness should then sign and date the errata and penalty of perjury pages and return the completed pages to all appearing counsel within the period of time determined at the deposition or provided by the Code of Civil Procedure.

\_\_\_ Waiving the CA Code of Civil Procedure per Stipulation of Counsel - Original transcript to be released for signature as determined at the deposition.

\_\_\_ Signature Waived - Reading & Signature was waived at the time of the deposition.

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1     \_\_\_ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF  
2     Transcript - The witness should review the transcript and  
3     make any necessary corrections on the errata pages included  
4     below, notating the page and line number of the corrections.  
5     The witness should then sign and date the errata and penalty  
6     of perjury pages and return the completed pages to all  
7     appearing counsel within the period of time determined at  
8     the deposition or provided by the Federal Rules.  
9     xx Federal R&S Not Requested - Reading & Signature was not  
10    requested before the completion of the deposition.

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS  
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

Veritext Legal Solutions is committed to maintaining the confidentiality of client and witness information, in accordance with the regulations promulgated under the Health Insurance Portability and Accountability Act (HIPAA), as amended with respect to protected health information and the Gramm-Leach-Bliley Act, as amended, with respect to Personally Identifiable Information (PII). Physical transcripts and exhibits are managed under strict facility and personnel access controls. Electronic files of documents are stored in encrypted form and are transmitted in an encrypted fashion to authenticated parties who are permitted to access the material. Our data is hosted in a Tier 4 SSAE 16 certified facility.

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